Title: Developing Multiple Intelligences Training Module for Preschool Teachers and its effect on Multiple Intelligences of Preschool Children (3-4 years)
Note: The responses are for research purpose and strictly confidential will be maintained.

General Instructions:
• Read all questions carefully.
• Kindly answer all the questions.
• Put a tick (✓) to choose a response.

Section I – Personal Profile

Name

Age

Sex

Male □ Female □

Educational Qualification

S.Sc. □ Post Graduate □
H.Sc. □ Diploma in E.C.E □
Graduate □ Certified course in E.C.E □
Any other □ Please Specify ___________________
## Marital Status
- Married
- Married with children
- Unmarried

## Religion
- Hindu
- Muslim
- Any other
- Please Specify ____________________

## Work Experience
- 0-5 year
- 10-15 year
- 5-10 year
- 15 year and above
Section II – Awareness on Multiple Intelligences

1. Do you know about Multiple Intelligence theory?
   Yes □ No □

2. If yes, what is your source?
   Workshops □ Newspapers □
   Magazine □ Internet □
   Friends □ Any other □
   Please specify ____________________

3. Who proposed the theory of Multiple Intelligences?
   Jean Piaget □ Maria Montessori □
   Howard Gardner □ Alfred Binet □

4. How many types of intelligences proposed in Multiple Intelligences theory?
   Six □ Seven □
   Nine □ Ten □

5. In which year Multiple Intelligences theory has been proposed?
   1985 □ 1983 □
   1999 □ 1978 □

6. Which of the following is the definition of intelligence according to Dr. Howard Gardner in his book 'Frames of Mind'?
   Human intelligence is the singular, collective, uniform cognitive capacity to act and react in an ever-changing world. □
   Intelligence is the ability to solve problems, or to create products, that are valued within one or more cultural settings. □
   Intelligence is the system's level of performance in reaching its objectives. □
   The ability of an individual to understand and cope with the environment; generally assessed with intelligence or "IQ" tests that are measures of aptitude. □
Section III- Questionaire on Multiple Intelligences

1. Indicate whether these statements are true or false.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each person possesses all intelligences.</td>
<td>☐</td>
</tr>
<tr>
<td>There are limited ways to apply multiple intelligences theory in the classroom.</td>
<td>☐</td>
</tr>
<tr>
<td>Providing hands-on learning centers in a classroom is an activity that supports bodily-kinesthetic intelligence</td>
<td>☐</td>
</tr>
<tr>
<td>Individual project making is an activity that supports interpersonal intelligence.</td>
<td>☐</td>
</tr>
<tr>
<td>Dramatic dialog and brainstorming are activities that support intrapersonal intelligence.</td>
<td>☐</td>
</tr>
<tr>
<td>Creating intrinsic and extrinsic order in your classroom is an activity that supports logical intelligence.</td>
<td>☐</td>
</tr>
<tr>
<td>Working with patterns is an activity that supports musical intelligence.</td>
<td>☐</td>
</tr>
<tr>
<td>Making connections to the natural world is an activity that supports naturalist intelligence.</td>
<td>☐</td>
</tr>
<tr>
<td>Keeping daily journals is an activity that does not support a verbal-linguistic intelligence.</td>
<td>☐</td>
</tr>
<tr>
<td>Semantic mapping is an activity that supports visual-spatial intelligence.</td>
<td>☐</td>
</tr>
</tbody>
</table>

2. Identify the characteristics of verbal-linguistic intelligence:

- Open to display complex reasoning
- Good at both oral and written communication
- Sensitive to the sounds, rhythms, inflections and meters of words
- Good at rhetoric
- Able to graphically represent their visual and abstract ideas

3. Identify the characteristics of logical-mathematical intelligence:

- Open to display complex reasoning
Can easily solve problems involving numbers and figures
Sensitive to color, line, shape form
Have developed sense of order and sequence
Able to compose or produce melodies and songs

4. Identify the characteristics of visual-spatial intelligence:
   Able to produce or transform thing using their hands
   Able to identify patterns in sound
   Able to perceive the visual-spatial world accurately (e.g. a hunter or guide)
   and to perform transformations upon those perceptions (e.g. an interior
   decorator, architect)
   Able to move and operate well in the world and has a good sense of direction
   Able to graphically represent their visual and spatial ideas

5. Identify the characteristics of bodily-kinesthetic intelligence:
   Able to produce or transform thing using their hands
   Able to identify patterns in sound
   Can use their bodies to express ideas and feelings
   Can sense naturally how their bodies should act and react in demanding physical
   situations
   Able to handle and solve internal problems more easily

6. Identify the characteristics of musical-rhythmical intelligence:
   Sensitive to rhythm, melody and pitch
   Able to identify patterns in sound
   Usually able to play musical instruments
   Sensitive to facial expressions, voice and gestures
   Able to handle and solve internal problems more easily

7. Identify the characteristics of interpersonal intelligence:
   Better able to appreciate and understand the natural world
   Able to communicate effectively in both verbal and non-verbal ways
   Able to understand group dynamics
   Sensitive to facial expressions, voice and gestures
   Able to handle and solve internal problems more easily
8. Identify the characteristics of intrapersonal intelligence:
   - Able to identify their own strengths, motivations, goals and feelings  
   - Able to communicate effectively in both verbal and non-verbal ways  
   - Capable of disciplining themselves by controlling their emotions, feelings and moods  
   - Able to maintain high levels of self-esteem  
   - Able to understand group dynamics

9. Identify the characteristics of naturalist intelligence:
   - Sensitive to changes in weather patterns  
   - Able to communicate effectively in both verbal and non-verbal ways  
   - Drawn to and fascinated by animals and their behavior  
   - Actively moved by various natural phenomena  
   - Able to handle and solve internal problems more easily

10. What is the implication of multiple intelligences theory in teaching and learning according to Gardner?
    - Teacher should focus only on one intelligence at a time.  
    - Uniform schooling should be given emphasis to be fair to all learners.  
    - Standardized testing should be used in the assessment of the students.  
    - Teaching/learning should focus on the particular intelligences of each person.
## Section IV – Multiple Intelligences Activity Grid

Please tick mark three main intelligences involved for each activity for children

<table>
<thead>
<tr>
<th>Activities/MI $^8$</th>
<th>V/L</th>
<th>L/M</th>
<th>M/R</th>
<th>V/S</th>
<th>B/K</th>
<th>INTER</th>
<th>INTRA</th>
<th>NAT</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mock-bridges</td>
<td></td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Block puzzles</td>
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<tr>
<td>Clay modeling</td>
<td></td>
<td></td>
<td>*</td>
<td>*</td>
<td></td>
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<td></td>
<td></td>
<td>Dough may also be used</td>
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<tr>
<td>Story- board</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td>Usually on the floor</td>
</tr>
<tr>
<td>Rhyming</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td>Poems, songs</td>
</tr>
<tr>
<td>Watching natural phenomenon</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td>Observing nature</td>
</tr>
<tr>
<td>Dancing</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td>Creative movements</td>
</tr>
<tr>
<td>Make-believe play</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td>Pretend play</td>
</tr>
<tr>
<td>Collecting quills</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>collection of twigs, rocks, stone, coin etc.</td>
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<tr>
<td>Chants</td>
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<td></td>
<td></td>
<td>*</td>
<td></td>
<td>Mantra</td>
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<tr>
<td>Bubble talk</td>
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<td></td>
<td>*</td>
<td>Discussion on forming of bubbles.</td>
</tr>
</tbody>
</table>

$^8$MI – Multiple Intelligences, V/L- Linguistic, L/M- Logical mathematical, M/R- Musical, V/S-Spatial, B/K- Bodily kinesthetic,

INTER- Interpersonal, INTRA- Intrapersonal, NAT- Naturalistic

* Answers (Empty sheets were given to the teachers)
## Section- V Multiple Intelligences Preferences of Teachers

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Statements</th>
<th>Always</th>
<th>Very Often</th>
<th>Some times</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I prefer for help if I am stuck rather than doing at myself.</td>
<td></td>
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<tr>
<td>2</td>
<td>I can easily mingle in a new group.</td>
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<tr>
<td>3</td>
<td>I take initiative in school or community activities.</td>
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<tr>
<td>4</td>
<td>I react according to mood of other people.</td>
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<tr>
<td>5</td>
<td>I prefer to work alone to gain productive results.</td>
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<tr>
<td>6</td>
<td>I am guided by my own rules while conducting a task.</td>
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<tr>
<td>7</td>
<td>My learning depends on my attitude.</td>
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<tr>
<td>8</td>
<td>I am always aware of what I am doing.</td>
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<tr>
<td>9</td>
<td>I enjoy reading and writing something new.</td>
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<tr>
<td>10</td>
<td>I like to play word puzzle/games.</td>
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<tr>
<td>11</td>
<td>I am keen to learn new languages.</td>
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<tr>
<td>12</td>
<td>I like lectures compared to visual presentation.</td>
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<tr>
<td>13</td>
<td>I can easily locate directions no matter where I am.</td>
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<tr>
<td>14</td>
<td>I can visualize things quickly when spoken or read.</td>
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<tr>
<td>15</td>
<td>I enjoy art activities.</td>
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<tr>
<td>16</td>
<td>I can easily understand the instructions of new appliances and gadgets.</td>
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<tr>
<td>17</td>
<td>I believe in recycling things and my house is preferred place for that.</td>
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<tr>
<td>18</td>
<td>I explore human and natural environments with interest and enthusiasm.</td>
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<tr>
<td>19</td>
<td>I am keen a observer of nature.</td>
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<tr>
<td>20</td>
<td>I am habitual of classifying and categorizing things around me.</td>
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<tr>
<td>21</td>
<td>I enjoy rhyming sentences.</td>
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<tr>
<td>22</td>
<td>I can easily notice when the beats in the music are off key.</td>
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<td></td>
<td>I can play an instrument to the new melody at my own.</td>
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<td>23</td>
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<tr>
<td>24</td>
<td>I sing and hum a lot while working.</td>
<td></td>
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</tr>
<tr>
<td>25</td>
<td>For me complex logic puzzles are fun.</td>
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</tr>
<tr>
<td>26</td>
<td>I always think and work systematically.</td>
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<tr>
<td>27</td>
<td>I can easily calculate arithmetic problems in my head.</td>
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<tr>
<td>28</td>
<td>I can think in abstract and conceptualize things easily.</td>
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<tr>
<td>29</td>
<td>I have good skills in games, sports, dance or any other physical activities.</td>
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<tr>
<td>30</td>
<td>I use more of body language while communicating.</td>
<td></td>
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</tr>
<tr>
<td>31</td>
<td>It is very difficult for me to sit for a longer time while working.</td>
<td></td>
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</tr>
<tr>
<td>32</td>
<td>I touch or physically handle things to learn more about it.</td>
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</tr>
</tbody>
</table>
## APPENDIX B

### OBSERVATION RATING SCALE FOR PRESCHOOL CHILDREN ON MULTIPLE INTELLIGENCES

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Sex</th>
<th>Class</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>S No</th>
<th>MULTIPLE INTELLIGENCES</th>
<th>ALWAYS</th>
<th>VERY OFTEN</th>
<th>SOME TIMES</th>
<th>RARELY</th>
<th>NEVER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Musical</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Can remember melodies or songs easily</td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>Hum or sing a lot in the classroom</td>
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<tr>
<td>3</td>
<td>Speak in rhythm most of the time to explain concept</td>
<td></td>
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<tr>
<td>4</td>
<td>Can differentiate between sounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Enjoy music at any time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Create own songs</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Bodily-kinesthetic</strong></td>
<td></td>
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<tr>
<td>7</td>
<td>Enjoy exercising in between activities</td>
<td></td>
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<tr>
<td>8</td>
<td>Difficult to sit longer</td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>Touch everything to learn more about it</td>
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<tr>
<td>10</td>
<td>Good co-ordination/balancing while exercising</td>
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<tr>
<td>11</td>
<td>Use body gestures for communication than verbal</td>
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</tr>
<tr>
<td>12</td>
<td>Creative movements</td>
<td></td>
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<tr>
<td></td>
<td><strong>Linguistic</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>13</td>
<td>Talkative/ Always ready to talk something</td>
<td></td>
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</tr>
<tr>
<td>14</td>
<td>Enjoy listening and able to comprehend</td>
<td></td>
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<tr>
<td>15</td>
<td>Pronounces words correctly</td>
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<tr>
<td>16</td>
<td>Good vocabulary for age</td>
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<tr>
<td>17</td>
<td>Imitate language of others</td>
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<tr>
<td>18</td>
<td>Prefer wordbooks on illustrative books</td>
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</tr>
<tr>
<td></td>
<td><strong>Logical- mathematical</strong></td>
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</tr>
<tr>
<td>19</td>
<td>Always questioning in the class</td>
<td></td>
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</tr>
<tr>
<td>20</td>
<td>Enjoy logic puzzles and</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>can locate flaws</td>
<td></td>
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<td>---</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Exploring new things and likes to experiment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Try to justify every opinions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Can relate numbers with objects</td>
<td></td>
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</tr>
<tr>
<td>24</td>
<td>Can categorize things to show the relevance</td>
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</tbody>
</table>

**Spatial**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>25</td>
<td>Doodle a lot on the worksheets</td>
</tr>
<tr>
<td>26</td>
<td>Enjoy free painting</td>
</tr>
<tr>
<td>27</td>
<td>Can identify color combinations</td>
</tr>
<tr>
<td>28</td>
<td>Enjoy games like find the way/join dots/differences in pictures</td>
</tr>
<tr>
<td>29</td>
<td>Draw figure advance of age</td>
</tr>
<tr>
<td>30</td>
<td>Prefer picture book on word book</td>
</tr>
<tr>
<td>31</td>
<td>Build interesting 3-D construction with blocks</td>
</tr>
</tbody>
</table>

**Interpersonal**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<td>32</td>
<td>Prefers to work in groups</td>
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<td>33</td>
<td>Can easily mingle in new group</td>
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<td>34</td>
<td>Have concern for others</td>
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<td>35</td>
<td>Ready to help/share belongings</td>
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<td>36</td>
<td>Communicate effectively in the class</td>
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<td>37</td>
<td>Leads in group activities</td>
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**Intrapersonal**

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<tr>
<td>38</td>
<td>Prefers to work alone/spends quite time</td>
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<td>39</td>
<td>Possessive about belongings</td>
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<td>40</td>
<td>High self-esteem</td>
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<tr>
<td>41</td>
<td>No separation anxiety from parents or friends</td>
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<tr>
<td>42</td>
<td>Sensitive to criticism from teachers or friends</td>
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<td>43</td>
<td>Can express feelings accurately</td>
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**Naturalistic**

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<td>44</td>
<td>Enjoy nature walk/outdoor activities</td>
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<td><strong>Appendices</strong></td>
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<td>45</td>
<td>Examine keenly nature on field trips</td>
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<td>46</td>
<td>Show interest/ fascinated by natural phenomenon</td>
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<td>47</td>
<td>Collect and categorize things from nature like flowers, rocks, twigs, quills etc.</td>
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<td>48</td>
<td>Recognize plants/animals based on their characteristics</td>
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<td>49</td>
<td>Show multi- sensory approach to solve problems</td>
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### APPENDIX C

**TIME SAMPLING OBSERVATION SCHEDULE FOR PRESCHOOL CHILDREN ON MULTIPLE INTELLIGENCES**

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**Sex:**

- Name of the child:

**Activity:**

- Name of the activity:

**Date:**

- Date of observation:

**Time:**

- Time of observation:
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<td>Good memory for names of classmates</td>
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<td>Play with words</td>
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<td>23</td>
<td>Imitate language of others</td>
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<td>Prefer wordbooks on illustrative books</td>
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<td>Logical- mathematical</td>
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<td>Asks questions</td>
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<td>26</td>
<td>Enjoy logic puzzles/ Brain teasers</td>
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<td>28</td>
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<td>Locate flaw in a puzzles</td>
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<td>Relate numbers</td>
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<td>Doodle a lot</td>
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<td>Enjoy free painting</td>
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<td>Identify colors/ color combinations</td>
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<td>Enjoy games, find the way/join dots/ difference in pictures</td>
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<td>Draw figure advance of age</td>
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<td>Prefer picture book on word book</td>
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<td>Build interesting 3-D construction with blocks</td>
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<td>Interpersonal</td>
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<td>Work in groups</td>
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<td>Make new friends</td>
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<td>Empathetic</td>
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<td>Adapt to others behavior</td>
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<td>Help/Share belongings</td>
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<td>Effective communicator</td>
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<td>46</td>
<td>Leads in group</td>
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<td>47</td>
<td>Friends of opposite sex in group</td>
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<td><strong>Intrapersonal</strong></td>
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<td>48</td>
<td>Work alone/spend quite time</td>
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<td>Possessive about belongings</td>
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<tr>
<td>50</td>
<td>Show independence</td>
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<td>51</td>
<td>Collection of things</td>
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<td>53</td>
<td>No separation anxiety</td>
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<td>Sensitive to criticism</td>
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<td>56</td>
<td>Enjoy nature walk/Outdoor activities</td>
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<td>Close Observation</td>
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<td>Show interest in every detail</td>
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<td>Collect and categorize things from nature</td>
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<td>60</td>
<td>Curious about flora/Fauna</td>
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<td>61</td>
<td>Recognize plants/Animals</td>
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<td>62</td>
<td>Multi-sensory approach</td>
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<td>Perceive relationships</td>
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### APPENDIX D

#### SECTION I - Component Matrix for Factor Analysis of MI preferences rating scale

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APPENDIX D

SECTION II - Component Matrix for Factor Analysis of rating scale for preschool children on multiple intelligences

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APPENDIX E (I)

Training Module for preschool Teachers on Multiple intelligences
Hide not your talents, for use they were made, what's a sundial in the shade.

- Ben Franklin

What this module is about?

A child's learning and experiences during early years can shape her/his thinking that can affect the later success or failure in school, work, and personal lives. Children at preschool learn mainly through play and interactive activities. The teachers in these schools capitalize on children's play to enhance their development. During this stage, a free choice component can be built into most curricula of the schools. A preschool teacher is an individual who plays important role in the development of young children. They are the first formal teachers to provide instruction to these children. They act as facilitators to help the children to learn and apply concepts in classroom as well as in day to day life.

Intelligence is not a single attribute that can be measured or given a number, I.Q. Tests measure mainly verbal, logical-mathematical, and some spatial intelligence. Believing that there are many other kinds of intelligences that are important aspects of human capabilities, Gardner proposed the theory of Multiple Intelligences (MI) which includes other six intelligences, bodily/kinesthetic, musical, interpersonal, intrapersonal, naturalist and existential intelligence. A detailed view on MI is presented in chapter 2.

MI theory helps teachers in applying a concept in many ways in classroom and also gives them an opportunity in identifying different capacities and abilities of a child. One of its greatest strengths lies in its capacity to serve as a framework allowing teachers to explore their teaching styles and assisting them in taking decisions about ways to structure teaching and learning experiences for students.

As an educator it is our responsibility to keep abreast of the latest developments in education and related disciplines. No matter how efficient our curriculum is, there is always a scope for improvement and enrichment.

One of the most promising and compelling approach to education reform is the MI theory. This theory has enabled educators to have a fresh look at their earlier view about children and their learning. Teachers around the world are rethinking lessons and their approaches to learning based on the concept of multiple intelligences. MI theory helps us in devising a variety of teaching strategies that can be easily implemented in classrooms.
In this module we shall learn about the MI theory and how it can be used as a highly effective teaching model that can greatly enrich a child’s learning in the classroom. We shall follow the following procedure:

1. **MI theory versus traditional approach of intelligence**
2. **About MI Theory**
3. **Explain MI with examples**
4. **Explore MI in classroom through activities & strategies**
5. **Apply MI in classroom through lesson planning**
6. **Assess students’ progress with Tri-assessment model**

This module is structured in chapters which are based on MI theory, its definition and explanation. In this module you will learn the important things you need to know about the theory. You will also learn about the evolvement and the important implications of the theory.

*On completion of this module, you should be able to:*
- Define multiple intelligences
- Identify nine intelligences based on the MI Theory
- Explain the MI theory
- Apply it in classroom through activities and lesson plans
- Explore assessment techniques within the existing curriculum
Ice breaker

Topic: Group Juggling

Objective: To build rapport among participants.

Material: 5 soft balls of different color.

Method:
- Ask participants to form a circle. (you should also be part of this activity)
- You take out one ball from your bag and pass to the immediate participant, calling her/him by name.
- That participant thanks you (by calling your name) and passes the ball to other participant calling her/his name (e.g. ‘Please take it Nisha’)
- Follow the same process to pass ball to each participant calling her/his name and thanking former participant.
- After the participants complete this activity, repeat the same.
- Once the ball has been passed to all participants, you can take out another ball and follow the same process until the group is energized.

Activity 1

Each child is different. Therefore she/he should be approached according to her/his strengths and limitations. It can only be done by careful observation. Concept of MI helps in understanding us how children differ from one another and what are their proclivities?

Objective: To encourage participants for observation.

Material: Seven look alike leaves plucked from a branch of a tree

Time: 10 minutes

Method:
- Select seven volunteers from the group.
- Give a leaf to each member.
- Now, ask them to observe it carefully for a minute.
- After that collect all the leaves and shuffle them.
- Scatter the leaves on the floor and ask them to identify their leaves.
- Give them enough time to do so, allowing them to discuss with their fellow members.
- Once all volunteers are satisfied with their observation, ask them to be seated.
- Now, ask them what did they learn from this activity?

MI Module
• How they have identified their leaves? A careful observation helped them to identify their leaves, from both similar looking and leaves with minute differences.

• Then explain the purpose of this activity that if few leaves of a single tree from a same branch differ, then why children from different families, with different socio-educational background cannot differ. Why should the same strategies to be used to teach and assess those little ones which are similar, yet so different from one another?
CHAPTER 1

MI approach Versus Traditional approach

Activity 1

Objective:
- Differentiate how individuals differ from one another.
- Show how single test is unable to predict success in later life, in spite of it measuring intelligence.

Material:
Power point slide
Time: 20 minutes

Method:
Try to figure out most intelligent person among these people (Show power point Slide):
- Vishwanathan Anand
- Lata Mangeshkar
- Dhanraj Pillay
- M. F. Hussain
- Amartya Sen
- Abhinav Bindra

Now think for few minutes, and try to answer these questions:
- If you think all of them are intelligent, then did they all have the same academic success?
- What according to you makes a person intelligent?
- How would you define intelligence?
- After brainstorming them, organize their answers and relate them to MI theory.
Objective 1: To differentiate traditional view of intelligence with MI approach.
There are many tests available which claim to measure intelligence. Here are few

- Stanford-Binet intelligent quotient
- Wechsler Intelligence Scale for Children
- Scholastic Aptitude Test

• Definition of Multiple intelligence:

<table>
<thead>
<tr>
<th>TRADITIONAL INTELLIGENCE</th>
<th>MULTIPLE INTELLIGENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It is the singular, collective, uniform cognitive capacity to answer items in a test(s) given”</td>
<td>“Intelligence is a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are valued in culture.” (1983, pp. 33-34)</td>
</tr>
</tbody>
</table>

Contd...
Knowing definition of multiple intelligences can you work out differences between multiple intelligence and Traditional view of intelligence?

<table>
<thead>
<tr>
<th>TRADITIONAL INTELLIGENCE</th>
<th>MULTIPLE INTELLIGENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence can be measured by short answer test</td>
<td>Intelligence can be assessed and not measured in quantity</td>
</tr>
<tr>
<td>People are born with fixed amount of intelligence and the level does not change over life time</td>
<td>Intelligence develops at different times and to different degrees in different individuals</td>
</tr>
<tr>
<td>Intelligence consists of ability in logic and language</td>
<td>There are at least six other kinds of intelligence that are important to complete human development</td>
</tr>
<tr>
<td>Teaching material can be used in similar fashion to every children</td>
<td>Teaching material can be used through multiple entry points</td>
</tr>
</tbody>
</table>

After knowing the differences can you state how these methods differ in classroom?

<table>
<thead>
<tr>
<th>TRADITIONAL METHOD</th>
<th>MI METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children with academic excellence are smarter than others</td>
<td>Every child is smart in different ways</td>
</tr>
<tr>
<td>Teachers grade intellect</td>
<td>Teachers use individual students intelligences to help them learn</td>
</tr>
<tr>
<td>The classroom is curriculum centered</td>
<td>Class room is child centered</td>
</tr>
<tr>
<td>Teachers help students acquire information and facts</td>
<td>Teachers help students in acquiring information themselves</td>
</tr>
<tr>
<td>Focus is on 3 R’s (Reading, wRiting &amp; aRithmetic)</td>
<td>Focus is on individual and not on what they know</td>
</tr>
<tr>
<td>Teachers work from texts</td>
<td>Teachers create curriculum</td>
</tr>
<tr>
<td>Teachers assess students by ‘objective’ measures</td>
<td>Teachers create assessment tools- portfolios, projects, exhibitions which incorporate MI</td>
</tr>
<tr>
<td>Teachers work in isolation</td>
<td>Teachers collaborate with colleagues in using MI (collegiality)</td>
</tr>
</tbody>
</table>
**Exercise:**

- State the definition of Multiple Intelligences?
- What methods do you use in the classroom think for few minutes?
- Tick the boxes which follow Multiple Intelligences theory:

  - Emphasis on Curriculum
  - Material taught in uniform way
  - Intelligence can be developed
  - Focus is on knowledge gained
  - Follow more than one teaching strategies
  - Children can be assessed in actual working condition
Activity 2

Objective: Understand the difference between MI approach and Traditional approach.

Material: White board & marker

Time: 10 minutes

Method:
- Divide the teachers in two groups
- Give 2 marks for right answer; deduct one mark for wrong answer and one mark for every correct answer for question passed from other group
- Make two columns of group A & group B on white board
- Start asking questions from the module
- Each statement belongs either to traditional view or MI view
- Group with highest marks is winner

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers work in isolation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More emphasis is on the curriculum rather than the child</td>
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<tr>
<td>Teacher helps to create meaning in constructive way out of the concept</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher is the part of curriculum development &amp; creating assessment rubrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence consists of ability, logic &amp; language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching material is used in different ways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence can be measured in quantity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence level do change over time</td>
<td></td>
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</tr>
</tbody>
</table>

MI Module
CHAPTER 2

Foundations of Multiple Intelligences Theory

Previous chapter covered the overview of MI. In this chapter we shall discuss MI in more detail.

Objective 1: To identify the basis of Multiple Intelligences Theory

MI theory has its root in cognitive science. However, Gardner was not satisfied with the too narrow focus of the cognitive theory. After studying intelligence in different cultures, namely, neurophysiology, anthropology, arts, and humanities, he identified nine intelligences. This included his experiments and observation of children.

Prominent aspects of MI theory:

- \textit{Capacity} and \textit{opportunity} are the pre requisites of the Multiple Intelligences.
- People possess all intelligences but in varying degrees of strengths, skills and limitations.
- No one kind of intelligence is better than the other.
- Intelligences are independent of each other but work together in complex ways.
- Each intelligence involves sub abilities. For example, in musical intelligence one can sing, compose music, play instrument or dance.
- Intelligences are not an end in themselves but these are the milestone to achieve learning goals.

Intelligence is considered if it meets following criteria (Gardner 1999a, p.36):

1. Criteria from biological sciences

1.1. \textit{Potential isolation by brain damage}: It means that one "candidate intelligence" can be dissociated from others. This criterion came from Gardner's work in neuro psychology. For example, stroke patients who are left with some forms of "intelligences" intact despite damage to other cognitive abilities such as speech.

1.2. \textit{An evolutionary history and evolutionary plausibility}: the "candidate intelligence" had a role in the development of our species and its ability to cope with the environment. In this case, Gardner uses inference to conclude that spatial abilities were critical to the survival of our species. Early hominids were able to navigate diverse terrains using spatial abilities. The pressure of the environment then resulted in selection for this ability.
2. **Criteria from logical analysis**

2.1. *An identifiable core operation or set of operations:* Acknowledging the fact that specific intelligences operate in the context of the environment, Gardner argues that it is crucial to specify the capacities that are central to the intelligence under consideration. For example, linguistic intelligence consists of core operations such as recognition and discrimination of phonemes, command of syntax and acquisition of word meanings. In the area of musical intelligence, the core operations are pitch, rhythm, timbre, and harmony.

2.2. *Susceptibility to encoding in a symbol system:* According to Gardner, symbol systems are developed or occurs naturally, and their purpose is to accurately and systematically convey information that is culturally meaningful. Some examples of encoding include written and spoken language, mathematical systems, logical equations, maps, charts and drawings.

3. **Criteria from developmental psychology**

3.1. *A distinctive developmental history, along with a definable set of expert “end state” performances:* In other words, individuals do not necessarily exhibit their “intelligence” in its raw state. Rather, they prepare to use their intelligence by passing through a developmental process. Thus, people who want to be mathematicians or physicists, spend years studying and honing their logical/mathematical abilities in a distinctive and socially relevant way.

3.2. *The existence of idiots, savants, prodigies, and other exceptional individuals:* Gardner refers to these as accidents of nature that allow researchers to observe the nature of a particular intelligence in great contrast to other average or impaired abilities. One example of this type of highlighted intelligence is the autistic person, who excels at numerical calculation or musical performance.

4. **Criteria from traditional psychology and psychometrics**

4.1. *Support from psychometric findings:* Test batteries reveal, which tasks reflect the same underlying factor and, which do not. For example, spatial and linguistic intelligences have very little correlation with each other.

4.2. *Support from experimental psychological tasks:* This indicates the extent to which two operations are related or different. Observing subjects who are asked to carry out two activities simultaneously can help determine, if those
activities rely on the same mental capacities or different ones. For example, a person engaged in working a crossword puzzle is unlikely to be able to carry on a conversation effectively, because both tasks demand the attention of linguistic intelligence. Whereas, the absence of this sort of competition allows a person to be able to walk and converse at the same time suggesting that two different intelligences are engaged.

Study the following diagram to understand the criteria:

MI theory has basis from following fields

- Biological Sciences
  - Potential isolation by brain damage
  - Evolutionary History

- Logical Analysis
  - Each intelligence has set of core operations
  - Symbolic presentation of information in culturally meaningful way

- Developmental psychology
  - Each intelligence follow developmental trajectory
  - Existence of exceptional individuals

- Psychometrics
  - Psychometric research
  - Research from experimental psychology
Exercise:
Try to answer following questions:
- What are the two pillars for intelligence?
- Do people possess all intelligences?
- How many criteria did Gardner proposed?

Activity 1

Objective:
- To know the basis of MI theory.

Materials:
Four cards- Examples from each field.
Four cards –Name of field.

Time: 5 minutes

Method:
- Divide all participants into eight groups, each group may include 2-3 participants
- Distribute the eight cards to the groups.
- Ask them to match fields of criteria with examples.

<table>
<thead>
<tr>
<th>Spatial &amp; linguistic intelligences have little correlation</th>
<th>Logical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autistic person excels at musical or numerical performance</td>
<td>Biological Sciences</td>
</tr>
<tr>
<td>The core operations in musical intelligences are pitch, rhythm, timbre, and harmony.</td>
<td>Developmental psychology</td>
</tr>
<tr>
<td>Spatial abilities were critical to the survival of our species.</td>
<td>Traditional psychology and psychometrics</td>
</tr>
</tbody>
</table>
CHAPTER 3

Explanation of MI Theory

"MI Theory was not developed to exclude individuals, but to allow all people to contribute to society through their own strengths. MI is meant to empower people not label them."

- Howard Gardner

Objective 1: To define and illustrate characteristics of Multiple Intelligences.

Gardner originally proposed seven categories of respective intelligences and later added eighth and ninth, which are as follows:

1. VERBAL-LINGUISTIC INTELLIGENCE: People with this intelligence are articulate and have ability to think in words and language to express and appreciate complex meanings.

   Characteristics:
   - Listens and responds to the sound, rhythm, and variety of spoken words
   - Imitates sounds, language, reading and writing of others
   - Learns through listening, reading, and writing of others
   - Comprehends, paraphrases, interprets, and remembers what they listen
   - Ability to learn new languages
   - Original works of writing, or oral communication

   Characteristics in children:
   - Tell jokes, stories, and puns
   - Use rich vocabulary
   - Express opinions
   - Play word games and reading
   - Use words to create images
   - Good at communicating their thoughts
   - Write better than his/her age

Authors, poets, journalists, speakers, politicians, lawyers and newscasters may exhibit high degrees of linguistic intelligence.
Activity 1
(Adjectives and names)

Objectives:
To reintroduce the participants in a new way

Time: 10 minutes for 15-20 participants (Depends on the size of group.)

Method:
- Ask each person in the group to think of an adjective which describes them and starts with the same letter as their first name.
- Now, first person tells her/his name along with the adjective. For e.g. Moody Manisha.
- The second person says her/his name along with adjective (Sincere Shweta), and then introduces the first person and her adjective to the group.
- The third person says her/his name with adjective (Naughty Nazia), followed by the second person’s name and adjective and so on.

2. LOGICAL-MATHEMATICAL INTELLIGENCE: These people are good at calculations, quantifications, propositions, hypotheses, and complex mathematical operations. It enables them to perceive relationships and connections and use abstract symbolic thought and sequential reasoning skills.

Characteristics:
- Skill at logical problem solving like inductive and deductive reasoning
- Classifying and categorizing information
- Use abstract symbols to represent concepts
- Comprehend patterns and relationship easily
- Use diverse mathematical skills
- Good at solving complex operations in Math, Physics, Computer programming and research
- Pose and test hypotheses for experiments

Characteristics in children:
- Like to work with numbers
- Can Figure out things
- Analyze situations
- Good at problem solving
- Work in situations with clarity
- Inquisitive about working of things

MI Module
• Always questioning
• Enjoy experimenting

Scientists, accountants, engineers, researchers, mathematicians and computer programmers may demonstrate this intelligence.

Activity 2
(Sequencing)

Objective:
• To energize participants
• Encourage them to think logically

Time: 5-7 minutes

Method:
• Ask your group to make a circle.
• Instruct them to touch the body parts in the following order; head, shoulders, knees and toes. Repeat it several times.
• Then ask participants to assume shoulders as head and vice a versa, toes as knees and vice a versa.
• Now, repeat the sequence and observe the group.

3. VISUAL-SPATIAL INTELLIGENCE: This intelligence involves the ability to think in three dimensions and use mental imagery, spatial reasoning, image manipulations, graphic and artistic skills, and active imagination.

Characteristics:
• Learn by observations
• Navigate self, good at directions, finding ways
• Think in images, and visualize in detail
• Easily analyze graphs, charts, maps and diagrams
• Reproduce objects by drawing or painting
• Easily construct three dimensional products such as origami objects, mock bridges etc
• Perceive both obvious and subtle information

Characteristics in children:
• Doodle, paint or draw
• Create three dimensional representations
• Understand and create maps and diagrams
• Take things apart and put them together
• Good sense of directions
• Like to solve puzzles such as finding ways, finding differences in pictures etc.

Sailors, pilots, sculptures, painters, interior designers, mechanics, surgeons and architects exhibit this type of intelligence.

Activity 3
(Squiggle)

Objective:
Participants will use their imagination to complete a sketch

Time: 10 minutes (depends on number of participants)

Material: Pencil and Drawing sheet

Method:
• First take an A4 drawing sheet and then draw a straight or curve line of your wish.
• Circulate this sheet to each participant to add more lines and complete the picture.
• Let participants imagine and draw something. The end product will be interesting.
• Be sure that once drawn, nothing can be erased.

4. BODILY-KINESTHETIC INTELLIGENCE: People with this intelligence have the ability to control body movement and handle objects skillfully. These learners express themselves through movement.

Characteristics:
• Learns by tactile movements
• Coordination and sense of timings
• Learns best by participation
• Demonstrates balance, grace, dexterity and precision in physical activities
• Shows precision in working by means of small or gross motor movements
• Invents new approaches to physical tasks
• Enjoys concrete learning experience like field trips, role play, assembling objects

Characteristics in children:
• Play sports and are physically active
• Engage in risk taking activities
• Dance, drama, art and mime
• Engage in crafts and play with mechanical objects
• Goal directed

MI Module
• Use body to express emotions
Athletes, dancers, surgeons, artisans, actors and crafts people are few of examples of this intelligence.

Activity 4
(Hi-5)

Objective:
To energize participants

Time: 5-7 minutes

Method:
• Ask participants to stand in a circle.
• Now start asking questions from your source book.
• If one question is applicable to more than one applicant then they all come in center of the circle and do Hi-5. If any body does not find the partner, than she will stand in the middle and can Hi-5 with other participants in next round.
• Questions may be, as follows and can be added, to have more fun:
  ▶ Have you cooked food for more than twenty people?
  ▶ Have you flown in an aeroplane?
  ▶ Do you have more than two pets?
  ▶ Do you have both brother and sister?
  ▶ Have you recently written something creative?
  ▶ Have you volunteered in any program recently?

5. MUSICAL INTELLIGENCE: Individuals possess sensitivity to pitch, melody, rhythm, timber, and tone. It enables one to recognize, create, reproduce and reflect on music. That is, they immediately respond to music, either appreciating or criticizing, what they hear.

Characteristics:
• Listens and responds with interests to a variety of sounds and organizes environmental sounds
• Develops the ability to sing or play an instrument alone or with others
• Evaluates and Explores the content and meaning of music
• Recognizes and discusses different musical styles, genres, and cultural variations
• Uses vocabulary and notations of music

MI Module
• Completes a musical statement in a way that makes sense
• Creates original composition
• Responds to music kinesthetically

*Characteristics in children:*
• Listen to and play music
• Associate feelings with music and rhythm
• Sing and hum a lot
• Create and replicate tunes
• Recognize various environmental sounds

This intelligence is demonstrated by composers, conductors, musicians, critics, instrument makers, radio jockeys and disco jockeys.

**Activity 5**

*(One minute silence)*

**Objective:**
To check participants’ sensitivities towards the environmental sounds

**Time:** 3-4 minutes

**Method:**
• Ask participants to close eyes and be silent for a minute.
• While participants close their eyes, make some sounds, like tapping of feet, turning page of book, sigh etc.
• After one minute ask them to open their eyes and enquire, if they heard any noise during this activity.
• This activity will explain the participants’ sensitivities to sound.

**6. INTERPERSONAL INTELLIGENCE:** It is the capacity to understand and interact effectively with others. It involves non verbal and verbal communication. These people have an uncanny ability to sense feelings, intentions, and motivation.
Characteristics:
- Develops and maintains social relationships
- Have sense of empathy
- Influences the opinions or actions of others
- Communicates effectively both in verbal and non-verbal ways
- Adapts behavior according to others
- Perceives the feelings, thoughts, motivations, behaviors, and lifestyle of others
- Participate in collaborative efforts and assumes appropriate roles

Characteristics in children:
- Enjoy many friends
- Lead, share, meditate
- Build consensus
- Help others with their problems
- Effective leadership qualities

It is evident in successful teachers, social-workers, lawyers, salespersons, counselors, actors and politicians.

Activity 6
(Two truths and one lie)

Objective:
To well acquaint participants with each other

Time: 10-15 minutes (depends on the size of group)

Method:
- Each person is asked to tell about himself/herself two things that are true and one that is a lie.
- It should be presented in such a way that the others in the group will not be able to guess, which one of these is a lie.
- Everyone take turns at guessing.
- This activity will help participants in interacting, with each other.

7. INTRAPERSONAL INTELLIGENCE: It refers to the ability to construct an accurate perception of one self and use such knowledge in planning and directing one’s life. It involves the understanding and appreciation of the human conditions.

Characteristics:
- Awareness of own emotions
- Develops an accurate model of self

MI Module
• Establishes and lives by ethical value system
• Works independently
• Motivated to seek his/her goals
• Finds outlets to express feelings and thought
• Strives for self actualization
• Empower others

*Characteristics in children:*
• Reflect, control own feelings and moods
• Pursue personal interests
• Set individual goals
• Learn through observing and listening
• Use meta-cognitive skills
• Like to work alone

It is evident in researchers, theologians, psychologists, theorists, saints, priests and philosophers.

**Activity 7**

**Rainbow**

**Objective:**
To reflect oneself in front of group

**Time:** 15-20 minutes

**Method:**
Ask everyone to create their own personal rainbows using the following questions for each color:

- **Red** typically is the stop/turn-off color – what is the one thing (which they can disclose in public) that really turns off them?
- **Orange** is the motivation color – what motivates them?
- **Yellow** is the inspiration or creativity color – what is the best idea they’ve had?
- **Green** is the money color – what they plan to do for money?
- **Blue** is the color of sky – what is their favorite fantasy about their future?
- **Indigo** is an odd or different color – what is the most daring thing they ever did?
- **Purple** is the color of royalty – if they were rulers of the country/school for a day – what is the first thing that they would do?
8. NATURALIST INTELLIGENCE: It consists of observing patterns in nature, identifying and classifying objects including flora and fauna, and understanding natural and human made systems.

Characteristics:
- Motivated to explore human and natural environment
- Observes, identifies, interacts with, or cares for plants and animals
- Classifies objects according to their characteristics
- Always curious about, “how things work” in nature
- Recognizes patterns and relationships among members of a species or classes of objects
- Keen to learn taxonomies of plants and animals
- Develops new taxonomies, theories of life cycle

Characteristics in children:
- Spend time outdoor
- Collection of plants, rocks and other things in nature
- Notice relationship in nature
- Classify flora and fauna
- Keen observer of the environment

Farmers, botanists, hunters, ecologists, and landscapers are the examples.

Activity 8
Nature walk

Objective:
To explore observation skills of participants

Time: 10-15 minutes

Method:
- Ask participants to just leave the room and walk into the premises around the room.
- Allotted time will be 5 minutes. After they come from the visit, ask them, what they observed.
- Compare observations of participants, and let them judge how their observations differ.
9. EXISTENTIAL INTELLIGENCE: It is the sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get here. This intelligence will not be discussed here in detail as it is very difficult to observe this particular intelligence among preschoolers. As we can observe, children have diverse intelligences, which are undervalued in some traditional schools. When children have opportunity to learn through their strengths, they may become more successful at learning all subjects along with basic skills.

Exercise:
Write short sentence on each intelligence in the diagram given:
CHAPTER 4

Multiple Intelligences in the classroom

Activity 1

(Identify with the animals)

Objectives:
- To brainstorm participants for strategies they can use in problem solving.
- To energize participants

Materials: Five cards with the name of the animals Bear, Rabbit, Kangaroo, Horse & Lion.

Time: Depends on the size of group. 10 - 15 minutes for 20 participants.

Method:
- Display all five cards
- Ask participants to choose animal which resembles their teaching style most.
- Ask them to describe why they selected the particular animal.
- This activity prompts and introduces an interesting discussion on multiple intelligences
- Answers may vary. For example, the kangaroos jump around from one place to another, eager to try new things, not wanting to be stagnant. The rabbits accomplish things quickly, are energetic, enthusiastic, etc. The horses are thoughtful, careful, and are considered, to be the workers by their colleagues. Lion displays the leadership quality. Bear is wise and displays good observational skills.

Objective 1: To encourage use of Multiple Intelligences Theory in classroom.
Most importantly, start small, no matter how grand you plan is. Minor adjustments to curriculum can make a big difference in students' motivation and understanding. MI theory suggests that no one set of strategies works best for all students at all times. All children have different predispositions in the eight intelligences. So any particular strategy is likely to be highly successful with one group of students and less successful with other groups (Silver et al., 1997).

Contd…
There are different strategies to explore and implement multiple intelligences in the classroom. You may already be using few of them. You can add following strategies to supplement what you are already doing.

<table>
<thead>
<tr>
<th>Verbal Linguistic</th>
<th>Logical -mathematical</th>
<th>Visual-spatial</th>
<th>Interpersonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning terms and expressions</td>
<td>Presenting criteria at the beginning of an activity to provide structure.</td>
<td>Sketching plans before beginning work.</td>
<td>Promoting interaction with other classes by participating in activities together.</td>
</tr>
<tr>
<td>Encouraging opportunities for speaking in class.</td>
<td>Allowing students to participate in building assessment rubrics.</td>
<td>Brainstorming ideas/ Semantic mapping.</td>
<td>Utilizing resource people to give enrich understanding in your classroom.</td>
</tr>
<tr>
<td>Incorporating drama into learning.</td>
<td>Setting short term, achievable goals for the class.</td>
<td>Guided imagery exercises Working with manipulative.</td>
<td>Incorporating drama, in which students can have a role to play</td>
</tr>
<tr>
<td>Keeping daily records by teachers.</td>
<td>Encouraging classroom debate Incorporating puzzles into learning centers.</td>
<td>Diagramming abstract concepts</td>
<td></td>
</tr>
</tbody>
</table>
### Promoting opportunities for creative writing (doodling).
- Promoting experiments to test student hypotheses.
- Utilizing visual technologies such as Paint brush (.bmp) and other kids' software.
- Planning activities where students form teams, to learn a concept.

### Nurturing oral storytelling.
- Including convergent thinking activities in instruction.
- Providing visual assessment performance tasks.
- Encouraging cooperative groups wherein, each member has an assigned role.

### Utilizing quality childrens' literature in the classroom.
- Offering open-ended problem solving tasks.
- Interactive computer games.
- Providing opportunities for students to select their own groups.

#### Intrapersonal
- Individualized instruction.
  - Providing hands-on learning centers.
  - Working with pattern blocks.
  - Create a nature area on the playground.

#### Bodily-kinesthetic
- Incorporating creative drama into your classroom.
  - Create musical mnemonics (method to improve memory).
  - Conducting hands on experiments in nature.

#### Musical

#### Naturalist

---

**MI Module**
<table>
<thead>
<tr>
<th>to assess.</th>
<th>Keeping students physically active during school day</th>
<th>Hearing sounds in one's environment.</th>
<th>Making connections to the natural world</th>
</tr>
</thead>
<tbody>
<tr>
<td>Including student self-assessment in classroom</td>
<td>Encouraging students to construct physical representations of concepts.</td>
<td>Listening to instrumental music.</td>
<td>Building portfolios of student work which involves observations.</td>
</tr>
<tr>
<td>Allowing opportunities for student reflection on learning</td>
<td>Including interactive games in reviewing and refining content.</td>
<td>Finding patterns in sequences of numbers.</td>
<td>Utilizing semantic mapping of ideas.</td>
</tr>
<tr>
<td>Providing opportunities for learners to express their feelings on a topic.</td>
<td>Using manipulative techniques in instruction.</td>
<td>Identifying rhyme schemes.</td>
<td>Illustrating hierarchies</td>
</tr>
<tr>
<td>Allowing students to set goals for themselves in the classroom.</td>
<td>Engaging students in hands-on science experiments</td>
<td>Drawing visual patterns.</td>
<td>Brainstorming categories.</td>
</tr>
<tr>
<td>Providing activities which offer learner choices.</td>
<td>Offering experiences in movement to rhythm and music.</td>
<td>Moving to rhythm.</td>
<td>Providing sorting and characteristics grouping tasks.</td>
</tr>
</tbody>
</table>

MI Module
Objective 2: To define active learning.

After discussing the strategies to encourage the use of MI theory in classroom, let us define learning and active learning activities:

Try to answer following questions:

- What is learning?
- How it differs from active learning?
- How active learning helps to identify and apply multiple intelligences in classroom?

In simple terms learning is change in behavior brought about by experience. In conventional method, learning is often accomplished in a passive manner by having instructors or content transmitted to the learners for them to absorb.

Where as active learning refers to techniques where students do more than just listening to a lecture. They are more actively involved in the learning process which results in enhanced learning. The elements of active learning are talking, listening, writing, reading, and reflecting.

Contd…
**Objective 3: To identify and illustrate the different active learning activities:**

Here, are some of the active learning activities which support Multiple Intelligences in the classroom. You can create your own active learning activities:

<table>
<thead>
<tr>
<th>Verbal – linguistic</th>
<th>Visual-spatial</th>
<th>Logic- mathematical</th>
<th>Interpersonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary Bank</td>
<td>Picture vocabulary</td>
<td>Framing rubric</td>
<td>Teamwork collages</td>
</tr>
<tr>
<td>Story telling</td>
<td>Create a collage</td>
<td>Questioning</td>
<td>Our common goal</td>
</tr>
<tr>
<td>What it looks like</td>
<td>Clay modeling</td>
<td>Math Jigsaw</td>
<td>Group songs</td>
</tr>
<tr>
<td>What it is all about</td>
<td>Concept connections</td>
<td>Sequence chart</td>
<td>Classroom parties</td>
</tr>
<tr>
<td>Jokes / Puns / Using Humor</td>
<td>Mural</td>
<td>Paired- partner problem solving</td>
<td>Puppet shows</td>
</tr>
<tr>
<td>Illustrations</td>
<td>Story- boards</td>
<td>Collect, count and specify</td>
<td>Dramas</td>
</tr>
<tr>
<td>Cartoons / Comic Strips</td>
<td>Snapshot Sequence</td>
<td>Treasure map</td>
<td>Creating original group stories</td>
</tr>
<tr>
<td>Television</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travelogue</td>
<td>Make a diagram or squiggle</td>
<td>Working with Venn Diagram</td>
<td>Plant a class garden</td>
</tr>
<tr>
<td>Scrabble / Word games</td>
<td>Working with Venn Diagram</td>
<td>Deciphering codes</td>
<td>Cooperative roles</td>
</tr>
<tr>
<td>Stories / Poems</td>
<td>Map making</td>
<td>Problem solving activities</td>
<td>Make a class book</td>
</tr>
<tr>
<td>Dramas / Plays</td>
<td>Painting/ Art /craft</td>
<td>Pattern games</td>
<td>Group games</td>
</tr>
<tr>
<td>Book making</td>
<td>KWL. (what I Know, what I Want to know, What I Learnt)</td>
<td>Word puzzles, number activities, logic games and activities</td>
<td>Cooking</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Presenting / Speaking aloud</td>
<td>Mind – mapping activities</td>
<td>Cause and effect activities</td>
<td>Treasure hunt</td>
</tr>
<tr>
<td>Listening, speaking</td>
<td>Watching videos</td>
<td>Computer activities</td>
<td>Any other group activity Class project</td>
</tr>
<tr>
<td>Solve a story</td>
<td>Taking photograph</td>
<td>Hypothesizing</td>
<td>Reading ‘Big Book’</td>
</tr>
<tr>
<td>Concept connections</td>
<td>Using computer aided graphics</td>
<td>Number sequence</td>
<td></td>
</tr>
<tr>
<td>Explanation</td>
<td>Guided imagery/visualization</td>
<td>Math sports</td>
<td></td>
</tr>
<tr>
<td>Describe the picture</td>
<td>Origami (paper folding)</td>
<td>Number rubric</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Intrapersonal</strong></th>
<th><strong>Bodily / Kinesthetic</strong></th>
<th><strong>Music / rhythmic</strong></th>
<th><strong>Naturalist</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quiet time</td>
<td>Pantomime</td>
<td>Songs / Rhymes</td>
<td>Gardening project</td>
</tr>
<tr>
<td>One-minute mirror</td>
<td>Warm-up</td>
<td>Rhyme words</td>
<td>Observation sketches</td>
</tr>
<tr>
<td>Self-Progress chart</td>
<td>Silly walk</td>
<td>Name a poem</td>
<td>Classification matrix</td>
</tr>
<tr>
<td>My goals</td>
<td>Shadow play</td>
<td>Sonnets</td>
<td>Plant observation(growth)</td>
</tr>
<tr>
<td>Self-talk</td>
<td>Balancing</td>
<td>Chants</td>
<td>Caring for pets</td>
</tr>
<tr>
<td>Self-Review</td>
<td>Build a tower</td>
<td>Rhyme stories</td>
<td>Animal match</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------</td>
<td>---------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Portfolios</td>
<td>Pattern dance</td>
<td>Experimenting with Instruments</td>
<td>Nature direction</td>
</tr>
<tr>
<td>Daily reflection</td>
<td>Playground races</td>
<td>Singing, humming, tapping</td>
<td>Science exhibition</td>
</tr>
<tr>
<td>Focusing / concentration skills</td>
<td>Clay modeling</td>
<td>Creating new melodies for concepts</td>
<td>Visit to planetarium, zoo, sanctuaries, and aquarium.</td>
</tr>
<tr>
<td>Personal brainstorming</td>
<td>Body tracing</td>
<td>Sing, record and play</td>
<td>Natural phenomena- rainy day, sunny day</td>
</tr>
<tr>
<td>Meta cognition techniques</td>
<td>Invent a sport</td>
<td>Music appreciation</td>
<td>Field trip, nature walk, hikes, treks etc.</td>
</tr>
<tr>
<td>Thinking strategies</td>
<td>Role-play</td>
<td>Playing recorded music</td>
<td>Scrapbook projects</td>
</tr>
<tr>
<td>Individual story making</td>
<td>Story board</td>
<td>Different sounds from different objects</td>
<td>Collection of leaves, twigs, coins, stamps, quills etc.</td>
</tr>
<tr>
<td></td>
<td>Hands on experiments</td>
<td>Listen to environmental sounds</td>
<td>Sorting articles from nature, categorizing objects, Organizing collections.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Music and movement</td>
<td>Save nature projects</td>
</tr>
</tbody>
</table>
Activity 2

Objective:
• To identify different activities adopted by teachers in implementing the curriculum.
• Presentation of activities for each of the eight intelligences by the teachers.

Materials:
Sheets of paper, pen

Time: 25 min

Method:
• Divide participants in four groups.
• Ask each group, to plan activities on all intelligences, for 10 minutes.
• Assign each group, a topic from the following list
  • Introduction of letters
  • Trees
  • Opposites
  • Parts of body
• Each group presents activities that they have planned, in front of the rest of group.

After, presentation by teachers, show and compare the slides on the above concepts as illustrated on next page.
Spatial: Find the picture in the maze for letter

Musical: Rhymes, identify the patterns in letters.

Kinesthetic: Making letters with blocks & clay

Logical: Matching pictures with letters

Linguistic: Book making

Naturalistic: Sand imprinting

Interpersonal: Group work by distributing class according to first letter in their name

Intrapersonal: Learn letters in their name
Logical: Sequencing blocks from large to small

Spatial: Match the pictures that are opposite in nature

Musical: Rhymes, different sounds opposite in nature

Kinesthetic: Do the action

Interpersonal: In out game, with male female

Intrapersonal: Moods of different children in the classification

Naturalistic: Nature walk to observe the differences

Linguistic: Narrate a story
PARTS OF BODY

Logical:
Count body parts

Spatial:
Puzzles

Musical:
Rhymes, sounds of body parts like feet, palm, fingers.

Intrapersonal:
Watching mirror, for self reflection

Interpersonal:
Painting with palms of students

Linguistic:
Picture Talk

Naturalistic:
Watching mirror, to differentiate among children

Kinesthetic:
Body tracing
Activity 3  
(Bingo)

Objective:
- To know the strengths of the participants.
- To energize participants

Material:
Bingo card (depends on number of participants), Pencil/pen.

Time: 15 Minutes

Method:
- Distribute MI bingo cards among participants.
- Ask participants, to go round the room and get others to sign the cards.
- They write their names in the box which is applicable for them. They can sign one only at a time.
- This activity is considered complete, when the person, who collects five signed boxes, across, down, or diagonally calls out “Bingo.”
- Given below is an example of diagonal “Bingo.”
- This game is similar to housie game

<table>
<thead>
<tr>
<th>Draw or Paint</th>
<th>Study maps</th>
<th>Play musical instruments</th>
<th>Keep a diary</th>
<th>Crossword puzzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speak in public</td>
<td>Dance</td>
<td>Take photos</td>
<td>Give advice and support</td>
<td>Read biographies</td>
</tr>
<tr>
<td>Do logical puzzles</td>
<td>Garden/Farm</td>
<td>Read/write poetry</td>
<td>Act in theatrical productions</td>
<td>Sing</td>
</tr>
<tr>
<td>Do volunteer work in the community</td>
<td>Sculpt or carve</td>
<td>Build/Renovate</td>
<td>Write songs</td>
<td>Spend time outdoor</td>
</tr>
<tr>
<td>Take care of animals/Plants</td>
<td>Athlete/play sports</td>
<td>Do crafts</td>
<td>Can say “no”</td>
<td>Family accounting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study maps</th>
<th>Play musical instruments</th>
<th>Keep a diary</th>
<th>Crossword puzzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dance</td>
<td>Take photos</td>
<td>Give advice and support</td>
<td>Read biographies</td>
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<tr>
<td>Do logical puzzles</td>
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<td>Write songs</td>
</tr>
<tr>
<td>Take care of animals/Plants</td>
<td>Athlete/play sports</td>
<td>Do crafts</td>
<td>Can say “no”</td>
</tr>
</tbody>
</table>
Objective 4: To discuss the resources for teachers to apply MI theory in the classroom

Following are the resources to implement MI theory in classroom:

**Collegiality:** Involve other teachers of the school to implement a theme. For example, the music teacher may help, to present a theme musically like rewriting lyrics; art teacher may help children, to explore a theme through drawing, coloring, clay modeling, or constructing something new related, to a theme.

**Learning center:** Invent activities, for a concept and allow children to explore it. For example, concept of seasons can be triggered through visual aids, role plays, excursions, rhymes etc. With this activity children can demonstrate their knowledge. Teachers can have eight learning centers, for different intelligences in a theme.

**Group work based on Multiple Intelligences:** After identifying the inclination of children towards different intelligences, teachers can organize them into groups, accordingly. This may help children, to effectively learn the concept.

**Emphasize on peer tutoring:** In this activity, senior students can help and have an opportunity to assess their juniors. This may help, to enhance and look through concept from different perspectives.

**Invite parents, specialists, and other community member:** Sometimes contribution of these people is invaluable. Under the concept of community helpers, teachers may invite postmen, doctors, police and other people to enrich the experiences of children. Otherwise, children can visit different places like, police station, hospitals, fire stations etc, to have hands-on experience.

Contd...
**Exercise:**

Try to answer following

- What is difference between learning and active learning?
- List out at least one strategy for each intelligence, to encourage its use in the classroom.
- Tick mark the right answers:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book making is an activity that supports verbal linguistic intelligence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mind mapping is an activity that supports bodily kinesthetic intelligence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deciphering codes is an activity that supports interpersonal intelligence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dramatization is an activity that supports interpersonal intelligence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watching mirror is an activity that supports intrapersonal intelligence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pantomime is an activity that supports visual spatial intelligence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhyming stories is an activity that supports naturalist intelligence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collecting and organizing is an activity that supports musical intelligence</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MI Module
CHAPTER 5

Application of Multiple Intelligences in the classroom

Activity 1

Objective:
To assess knowledge gained on Multiple Intelligences.

Materials: KWL Chart for each participant on MI, Pen/pencil
Time: 15- 20 minutes (More time will be needed if participants are more than 15)

Method:
- Distribute KWL sheet among teachers.
- Ask them to fill the sheet in 10 min.
- Their answers should be crisp and in pointers, so that others can understand easily.
- Jot down the points on a white board as participants read their KWL chart.
- Proceed further according to the results obtained.

<table>
<thead>
<tr>
<th>KNOW</th>
<th>WANT</th>
<th>LEARN</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is probably what do you know or</td>
<td>What you want to learn about application</td>
<td>What did you learn about MI that you didn't know</td>
</tr>
<tr>
<td>remember about MI</td>
<td>of MI activities?</td>
<td>before?</td>
</tr>
<tr>
<td>V/L:</td>
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<td>M/R</td>
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<tr>
<td>INTRA</td>
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<td>INTER</td>
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<tr>
<td>NAT</td>
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</table>
After going through the various strategies and activities, you may want to apply MI theory in the classroom. You should structure the presentation materials in a style that covers all or most of the intelligences. Thus, you must be trained to present lessons in a wide variety of ways using music, cooperative learning, art activities, role-playing, multimedia, field trips, inner reflection and many more in order to recognize and teach, to a wider range of talents and skills. You might be applying MI theory in a classroom, consciously or unconsciously. Let us begin with assessing the students with MI. You can design your own assessment criteria apart from the one given below:

**Objective 1: To assess student’s capabilities with checklist of MI**
Assessing your children with MI checklist will give you a new dimension to look into their different intelligences. This activity will further help you, to plan lesson on the basis of the needs of the children.

<table>
<thead>
<tr>
<th>Name of Child:</th>
<th>Age:</th>
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<tbody>
<tr>
<td>Sex:</td>
<td>Class:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MULTIPLE INTELLIGENCES</th>
<th>ALWAYS</th>
<th>VERY OFTEN</th>
<th>SOME TIMES</th>
<th>RARELY</th>
<th>NEVER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Musical</strong></td>
<td></td>
<td></td>
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<tr>
<td>Can remember melodies or songs easily</td>
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<tr>
<td>Hum or sing a lot in the classroom</td>
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<tr>
<td>Speak in rhythm most of the time to explain concept</td>
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<tr>
<td>Can differentiate between sounds</td>
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<tr>
<td>Enjoy music at any time</td>
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<td></td>
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<tr>
<td>Create own songs/rhymes</td>
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<tr>
<td><strong>Bodily-kinesthetic</strong></td>
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<tr>
<td>Enjoy exercising, in between activities</td>
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<td></td>
</tr>
<tr>
<td>Difficult to sit longer</td>
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<tr>
<td>Touch everything to learn more about it</td>
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<tr>
<td>Good co-ordination/balancing while exercising</td>
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<tr>
<td>Use body gestures for communication</td>
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</tbody>
</table>

MI Module
| than verbal |
| Creative movements |
| **Linguistic** |
| Talkative/ Always ready to talk something |
| Enjoys listening and able to comprehend |
| Pronounces words correctly |
| Good vocabulary for age |
| Imitates language of others |
| Prefers wordbooks on illustrative books |
| **Logical- mathematical** |
| Always questioning in the class |
| Enjoys logic puzzles and can locate flaws |
| Exploring new things and likes to experiment |
| Tries to justify every opinions |
| Relates numbers with objects |
| Categorizes things to show the relevance |
| **Spatial** |
| Doodles a lot |
| Identifies color/ color combinations |
| Enjoy games like find the way/join dots/ differences in pictures |
| Draw figure advance of age |
| Prefer picture book on word book |
| Build interesting 3-D construction with blocks |
| **Interpersonal** |
| Prefers to work in groups |
| Mingle easily in new group |
| Has concern for others |
| Helps/Shares belongings |
| Communicates effectively in the class |   |   |   |   |
| Leads in group activities |   |   |   |   |

**Intrapersonal**

- Prefers to work alone
- Possessive about belongings
- High self-esteem (self evaluation)
- No separation anxiety from parents or friends
- Sensitive to criticism from teachers or friends
- Expresses feelings accurately

**Naturalistic**

- Enjoys nature walk/outdoor activities
- Examines keenly nature on field trips
- Shows interest/ fascinated by natural phenomenon
- Collects and categorizes natural things from nature like flowers, rocks, twigs, quills etc.
- Recognizes plants/animals based on their characteristics
- Show multi- sensory approach to solve problems
Objective 2: To design lesson plan using Multiple Intelligences theory

MI theory suggests a framework with which you can create a new curriculum. You can develop at least eight ways to teach a concept. Good lesson plans lead to quality schools as lesson plans are blueprints of teaching.

The theory of Multiple Intelligences helps you transform existing lessons or units into multi model learning opportunities for students.

You can follow given steps while planning a lesson based on MI, illustrated on next page.

Contd…
Focus on a concept and frame objectives using MI wheel

Think in eight ways

Select appropriate strategies

Select appropriate activities

Organize lesson plans

Implement the lesson plan
Activity 2
(Advertisement)

Objective:
To energize participants
To encourage them to show their strengths

Time: 20-25 minutes

Method:
- Ask participants to plan an advertisement for a shampoo.
- They can make their own brand and demonstrate their product in creative ways.
- This activity will be great fun and at the same time participants can use their own strength to make the presentation effective.

Implementing MI initially can be quite overwhelming and confusing for teachers, as these intelligences may appear quite overlapping. To overcome this, teachers can use ‘Wheel of MI’, which helps them to plan lesson by understanding fluid relationship of the intelligences. This model presents MI theory in a familiar way, which you can observe as a routine, in the classroom. Here, the intelligences are grouped into three regions: Analytic, Interactive and Introspective.

![Wheel of MI Diagram](image-url)
These domains are further classified as follows, which will be discussed in detail later in this chapter:

*Analytic domain* includes logical, musical/rhythmic and naturalist intelligences.

*Interactive domain* includes linguistic, interpersonal and kinesthetic intelligences.

*Introspective domain* includes intrapersonal, existential and visual intelligences.

The analytic domain consists of the logical, musical and naturalist intelligences. Intelligences in this region mainly involve analysis of knowledge. Let us understand each intelligence with an activity.

**Musical**: Play most familiar rhyme of children on any instrument. If music teacher modifies/ replaces some notes from it. Children can notice the change in music pattern. For example, teacher plays the lyrics, ‘Jingle bell’ thrice, rather than twice in following rhyme; musically smart child can easily analyze and tell teacher the actual rhythm of rhyme.

“*Jingle bell, Jingle bell, Jingle bell, Jingle all the way*” instead of
“*Jingle bell, Jingle bell, Jingle all the way*”

**Logical**: Suppose a child is trying to make a car from blocks, if it does not run smoothly, she/he tries to figure out the possible reasons like wheels are unbalanced or wheels are overloaded. So, she/he analyzes the problem.

**Naturalist**: Given sea shells to sort on the basis of size and shape, a child may classify by keeping them in the order of large to small or vice a versa in each shape category. So, this intelligence also has strong analytical component in it.
The interactive domain consists of the verbal, interpersonal, and kinesthetic intelligences. These are the intelligences that learners typically employ to express them and explore their environment. They have social component in them because they interact in one way or the other:
After visiting a zoo, ask about their experiences. Children may respond verbally, or use body gestures (responding kinesthetically), effectively communicating with teachers or peers (interpersonal) by sharing their observations.

The introspective domain consists of the existential, intrapersonal and visual intelligences. This requires the learner to look inward, an emotive connection to her/his own experiences and beliefs in order to make sense of new learning.
Given an activity to draw the family, many kindergarten children draw it on the basis of attachment they have with the family members (visual). Some times they describe their feelings verbally (Intrapersonal), if not through the pictures. Many times children relate themselves with the bigger part of the universe, which reflects their
existential intelligence.

Walter McKenzie (2000) described two strategies for utilizing this MI wheel. You can also develop your own.

a) To balance intelligences

b) To target intelligences

a) *To balance intelligences*: One, intelligence is selected from each domain in order to provide for a well-balanced accommodation of the intelligences. For example:

- **Objective**: Given a shloka, the learner will recite the shloka with proper meter and interpretation of its content.

- **Intelligences**:
  - Verbal - recite the Shloka
  - Musical - experience the meter or rhythm of Shloka
  - Existential - interpret the sentiment expressed in the Shloka

b) *To target intelligences*: Target all the intelligences of a specific domain to provide for experience that strengthen that particular domain. For example:

- **Objective**: Given a concept for dramatization, learner explores the concept and expresses it in socially approved manner.

- **Intelligences**:
  - Verbal - Presenting the concept verbally
  - Interpersonal - Expression of self in context with other person
  - Kinesthetic - Uses gestures to deliver message accurately

Wheel of MI domain will help to frame objectives of the lessons.

**Exercise:**

Take a concept and try to balance intelligences in the following frame of example,

> **Concept**:

- **Objective**:

- **Intelligences**
  1. Linguistic (Interactive)
  2. Logical (Analytical)
3. Intra personal(Introspective)

Now target all intelligences of a domain

<table>
<thead>
<tr>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Objective</td>
</tr>
<tr>
<td>• Intelligences (Analytical)</td>
</tr>
<tr>
<td>1. Logical</td>
</tr>
<tr>
<td>2. Rhythmic</td>
</tr>
<tr>
<td>3. Naturalist</td>
</tr>
</tbody>
</table>

**Activity 3**

*(Post office)*

**Objective:**

To energize participants

**Time:** 10 minutes

**Method:**

- Ask participants to sit in a circle.
- You start by declaring, "I have a post for the person, who is wearing a red and black combination dress."
- Person with that reference gets up and again provides a clue that I have a post for the person, who has longest hair.
- This activity continues till each participant takes part in it.
- Conduct this activity at a fast pace, to make it more interesting.
After learning how to frame objectives, let us, study the MI diagram given below to understand the lesson planning. The thinking in eight ways will give you the opportunity to plan a lesson, which will cater to the need of every student of your class.

**OBJECTIVE**

- **Linguistic**
  Use of Vocabulary

- **Logical Mathematical**
  Use of analytical/logical thinking and numerals

- **Spatial**
  Encourage visualization through visual aids, color, diagrams, maps etc.

- **Musical**
  Encourage use of music, rhythmic pattern and environmental sounds.

- **Naturalist**
  Involvement of natural elements, living and man made systems.

- **Intrapersonal**
  Encourage self-relection on knowledge and emotions

- **Interpersonal**
  Learning by co-operative groups, interaction with peers, resource person etc.

- **Bodily Kinesthetic**
  Involvement of tactile movement or ‘learning by doing’
Based on this lesson plan template, sample lesson plans are provided at the end of this module.

LESSON PLAN TEMPLATE

Concept:

Day:

Date:

Age:

Teachers: Child:

Time needed for each activity:

Teaching Aids:

Aim:

Objectives:

Multiple intelligences activities:

- Verbal-Linguistic
- Logical-Mathematical
- Visual-Spatial
- Bodily-Kinesthetic
- Musical-Rhythmic
- Inter personal
- Intra personal
- Naturalist

Each of intelligences will include following categories:

Name of activity/ Title/ Topic:

Introduction
Presentation
Recap

Evaluation:

Self evaluation
Peer evaluation
Teacher's evaluation
Activity 4
(The Magic wand)

Objective:

- To analyze oneself in current job.
- To energize participants

Materials: None

Time: 15 min (for 20 participants)

Method:

- Ask participants for their responses when they find a magic wand that allow them to make three changes of their wish.
- You can change anything you want. How would you change yourself, your job, or any other part of your life?
- Discuss with teachers, why it is important, to make a change. Another variation is to ask teachers what they would change in their school, if they were the principals.
- This will be a fun activity in the context of multiple intelligences, as it will bring qualities of the participants, in front of group, and changes they really wish to make in their existing jobs.
CHAPTER 6
Assessment of students with MI theory

I've often humorously suggested to teachers that one good way to identify students' most highly developed intelligences is to observe how they misbehave in class.

-- Thomas Armstrong

Objective 1: To define assessment

Assessment of children is a very important component in preschool classroom, as it helps to understand and support their potential. As we here discussed in earlier chapters that students learns in multiple ways, they do demonstrate their knowledge in many ways.

MI theory provides a frame work, for both classroom learning and assessment. Children exhibit their learning in diverse ways like drawing, role plays, songs, interacting verbally etc. Only by changing teaching methods alone, will not suffice to reap true benefits of MI. Assessment methods also need to be modified.

It is very difficult for traditional assessment methods to assess the curriculum, based on co-operative learning, individuality, flexible in time, which encourages higher order thinking, among students.

So, there is a need to come up with ways, to bridge the gap between teaching methods and assessment, by developing a technique to assess knowledge of children, and how they use it to solve problems.

Today, schools teachers are not only relying on the traditional measures but trying to follow more authentic assessments, as assessment is an integral part of the teaching and learning process.
Activity 1
(Assessment of Children)

Objective:

• To know meaning of assessment.
• To differentiate between formal and informal assessment.

Materials: None

Time: 10 minutes

Method:

• Ask the participants, to raise hands who are married with children.
• Now, ask unmarried/ married participants without children, to raise their hands.
• Ask any participant who is a mother to just think, of her own child, and ask her to illustrate, ten characteristics of her child.
• Now, repeat this with any other participant, who is single/ married, without children.
• Observe carefully and notice the difference in time taken and also their observations. Also compare the observations.
• Explain that this is an informal assessment which we do consciously or unconsciously. But when we use some authentic measures to record this observation, then it becomes a formal assessment.
• This is an interesting activity in which the participants enjoy a lot, especially, when they take a lot of time to illustrate the characteristics of children.

HOWARD GARDNER

I define assessment as the obtaining of information about the skills and potentials of individuals, with the dual goals of providing useful feedback to the individuals and useful data to the surrounding community.

(1993, p. 174.)
Objective 2: To differentiate between old and new paradigm of assessments.
Adopted from David Lazear (1998, p.5-6)

<table>
<thead>
<tr>
<th>TRADITIONAL VIEW</th>
<th>MI VIEW</th>
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</thead>
<tbody>
<tr>
<td>All students learn in the same way, therefore, instruction &amp; testing can be</td>
<td>Each student is unique; therefore, instruction &amp; technique must be</td>
</tr>
<tr>
<td>standardized.</td>
<td>individualized and varied.</td>
</tr>
<tr>
<td>The most accurate indicator, of student knowledge &amp; learning is the norm based,</td>
<td>Performance based, direct assessment involving a variety of testing</td>
</tr>
<tr>
<td>standardized assessment instrument.</td>
<td>instruments are accurate indicators.</td>
</tr>
<tr>
<td>Paper &amp; pencil tests are the only valid way to assess academic progress.</td>
<td>Students created &amp; maintained portfolios, as well as, other instruments</td>
</tr>
<tr>
<td></td>
<td>including paper pencil tests.</td>
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<tr>
<td>Assessment is usually done separately, from the curriculum and methods, of</td>
<td>The lines between assessment &amp; curriculum are blurred.</td>
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<tr>
<td>instruction.</td>
<td></td>
</tr>
<tr>
<td>True &amp; objective picture of students’ knowledge &amp; learning is from outside</td>
<td>The human factor is involved with the students, for an accurate</td>
</tr>
<tr>
<td>testing instruments.</td>
<td>assessment process (teachers, parents &amp; students)</td>
</tr>
<tr>
<td>Focused on the content of the curriculum, particularly text book based learning</td>
<td>The process of learning is as important as the content of the curriculum,</td>
</tr>
<tr>
<td>&amp; instruction, which can be measured objectively.</td>
<td>as not all learning can be objectively tested.</td>
</tr>
<tr>
<td>The student is a passive learner</td>
<td>The student is an active &amp; a responsible learner.</td>
</tr>
<tr>
<td>Mono model testing practices (3 R’s) are the only viable means for testing.</td>
<td>Multi model testing practices, based on MI are viable means of testing</td>
</tr>
<tr>
<td></td>
<td>students.</td>
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MI Module
Objective 3: To discuss sources of assessment.

Following can be sources to record assessment of children:

Observation: The main source of assessment available to assess children is Observation. It can be formal or informal.

There are many assessment methods available to record observations formally:

- Anecdotal records
- Time sampling
- Assessment sheets

Informal observation may include:

- Teacher can have a handy diary on the desk, so that she can jot down important information, rather relying on recall or memory approach.
- She can also observe children in their free period/time.

Refer to previous assessment records: Cumulative records can provide important information about a student's multiple intelligences.

Involves other Teachers: Collect information about children from all special activity teachers. They can provide valuable information about any one or two intelligences which are generally considered out of scope in a classroom. When a child is continuously moving in the class and it seems he is disturbing everyone, he may be kinesthetically intelligent and could learn things by doing or touching.

Involves Parents: Parents are valuable source of reference of child's multiple intelligences. As they are watching their children's growth and development from birth, ask them about the preferences of their child, at the same time introduce them with the theory of multiple intelligences, so that they can also observe and can record it for future references.

Learning Stations: As discussed earlier, that these are the centers, where children can demonstrate their knowledge. Observation of children at these centers can provide information in actual working condition.
Activity 2
(Ten things in common)

Objective:
To energize participants
To build concord among participants

Time: 15 minutes for 20 participants

Material: Pen and Paper

Method:
- Divide participants in groups of five.
- Groups can be large, to make activity more interesting.
- Ask them to write down ten things common among themselves.
- Later, share their experience in front of other groups.

Objective 4: To discuss Tri-Assessment Model/Balanced Assessment.
Schools that are moving toward authentic assessment and multiple intelligence assessment are still reluctant to give up traditional methods of assessment. This tri-assessment model easily integrates Howard Gardner's multiple intelligence theory to provide holistic assessments that target every type of learner.

Balanced Assessment shows you how to create authentic, dynamic, fluid and formative assessments. The tri-assessment model promotes a combination of traditional, portfolio and performance methods to ensure an accurate assessment of growth and development in every student.

Robin J. Fogarty (2007)
Robin J. Fogarty proposed the following Model known as Tri-assessment model (2007)

<table>
<thead>
<tr>
<th>V/L</th>
<th>L/M</th>
<th>V/S</th>
<th>TRADITIONAL ASSESSMENT</th>
<th>Grading &amp; Ranking</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Class Work</td>
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<td>Home Work</td>
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<td>Norm Referenced</td>
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<td>Criterion</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Referenced</td>
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<table>
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<th>V/S</th>
<th>INTRA</th>
<th>V/L</th>
<th>L/M</th>
<th>INTER</th>
<th>N</th>
<th>PORTFOLIO ASSESSMENT</th>
<th>Growth &amp; Development</th>
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<td></td>
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<td>Inspection</td>
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<th>V/L</th>
<th>L/M</th>
<th>V/S</th>
<th>INTER</th>
<th>M/R</th>
<th>PERFORMANCE ASSESSMENT</th>
<th>Relevance &amp; Transfer</th>
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<td></td>
<td>Class Work</td>
<td>Scoring Rubrics</td>
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<td></td>
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<td>Standards</td>
<td>Criteria</td>
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<td>Indicators</td>
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</table>
Let us, study about these three assessment methods in detail, namely, traditional, portfolio, and performance assessment:

**Objective 4.1: To discuss traditional assessment.**

Traditional assessment is a part of tri-assessment model/ balance assessment intended for teachers, who are moving towards authentic assessment. These forms of assessment are very useful in making the students think critically, and in a higher order. Traditional Assessment is a term that is used to describe the means of gathering information on student learning through techniques such as:

- Multiple – choice
- Fill-in-the-blank
- Matching questions
- True or false
- Essays

**Objective 4.2: To discuss portfolio assessment.**

It is a purposeful collection of student's work which tells the story of student's efforts progress or achievement in given area (Arter & Spandel, 1992). This may include:

- Student participation in selection of portfolio content
- The guidelines for selection
- The criteria for judging merit
- Evidence of student reflection

Contd...
Objective 4.2.1: To illustrate portfolio creation

Follow the above procedure to make a portfolio. Now, discuss each step in detail:

1. Purpose:

As portfolio is the purposeful selection of student's work, the purpose is decided by, what story you want to reflect. Here we will be undertaking three purposes:

a) To show growth: Growth portfolios help to develop process of skills like self evaluation and goal setting, identify strength and weaknesses, track the development of one or more products/performances.

b) To showcase current abilities: Showcase portfolios help to showcase accomplishment, prepare sample of best work, showcase student perceptions of best work, and communicate student's current aptitude, to future teachers.

c) To evaluate cumulative achievement: Evaluation portfolios help to document achievement for grading purposes, progress towards standards, place students appropriately.

2. Audience: Audience could be students, teachers, parents, community & experts.

MI Module
3. **Content**: The content depends on the purpose of portfolio.

4. **Process**: The process will be as follows:

- **Decide on Expectations to be demonstrated**
  - Teacher Directed

- **Set Criteria For Success**
  - Teacher Directed/Student Input

- **Work Completed; Samples Collected**
  - Student/Teacher Partnership

- **Establish Rubric**

- **Reflect on Learning**
  - Student Directed/Teacher Assisted

- **Set Learning Goals**
  - Student Directed/Teacher Facilitated

- **Portfolio Shared; Others Respond**
  - Student Directed

- **Refine Contents Of Portfolio**
  - Student Directed/Teacher Monitored

**MI Module**
5. **Management:** It may depend on the following questions:

- Should the portfolio building process wait until the end or should it occur as you go?
- Will the portfolios be composed, of paper or stored electronically (or both)?
- Where will the samples and reflections of the work be kept?
- Who will be responsible for saving/storing them?
- Who will have access to it, and when?
- How will portfolio progress be tracked?
- What will the final product look like?
- What, if students join your class in the midst of the process?

6. **Communication:** This deal with sharing of the portfolios, may be through

- Pairing up with students in the class
- Pairing with elder students
- Providing models

7. **Evaluation:** This refers to being judgmental about something. Keeping two questions in mind, you can evaluate the portfolios.

- What to grade: It is from nothing to everything, including samples of work, reflection, organization & presentation.
- How to grade: By setting rubrics for the evaluation.

Contd...
As you have understood the procedure for making portfolio, let us have a look at the following example of portfolio assessment:

<table>
<thead>
<tr>
<th></th>
<th>Exceptional</th>
<th>Commendable</th>
<th>Acceptable</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of critical thinking and problem solving ability.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effectiveness of communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of creativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall progress</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments

_________________________________________________________________

_________________________________________________________________

MI Module
Activity 3

(Do as I say...)  

**Objective:**

- To help the participants, relax and create an informal environment.
- To energize the participants.

**Time:** 5-10 minutes.

**Method:**

- Ask participants to form a circle.
- Instruct them to act, as per your instructions, while giving the following commands.
- Expect that people will be confused and so make mistakes. Such mistakes generate laughter and fun.

**Queen Bee:** The participant turns around and puts his or her hands together behind the back (just above the buttocks) and flutters them back and forth to mimic a bee's tail. The two participants alongside thrust their arms away from the bee and flutter them like wings.

**Super Model:** The participant should immediately pose as a fashion model. The two participants alongside the participant acting as a super model (the one on the left and the right) take the role of the photographers and mimic gestures of taking a photo.

**Elephant:** The participant poses as an elephant by immediately thrusting two hands held together, in front, to represent the elephant's trunk. The two participants alongside form a circle with their hands and place them on the side of the participant pointed, to serve as "ears" of the elephant.

**Juice:** The participant shakes his or her body like the jelly, continuously. The two participants alongside hold each other's hands and form a circle around the target participant. The idea is to form a "glass" around the juice.

**Donkey:** The participant and those alongside him or her should freeze and not move at all.

MI Module
Objective 4.3: To discuss performance assessment

Performance assessment is a measure of assessment based on authentic tasks, such as activities, exercises, or problems that require students, to show what they can do. It is a form of alternative or authentic assessment. It is used both for learning & assessment. It also involves H. O. T. S. (Higher Order Thinking Skills), for example, cause and effect analysis, inductive & deductive reasoning, experimentation, and problem solving.

This type of assessment provides teachers, with information about, how a child understands and applies knowledge. Also, you can integrate performance-based assessments into the instructional process to provide additional learning experiences for students.

What is the procedure for performance assessment? The many steps resemble with portfolios, as we have discussed earlier and that, both are the two sides of a coin. Follow the procedure given below:
1. **Create performance rubrics/ Learning goals:** As opposed to most traditional forms of testing, performance-based assessments do not have clear-cut right or wrong answers. Rather, there are degrees to, which a person is successful or unsuccessful. You can also involve students to create rubrics for assessment, keeping in mind that it should be fair & simple.

2. **Purpose:** You have to clearly define the criteria for task and that will help you to remain objective during the assessment. It includes answers to the following questions like,
   - What concept, skill, or knowledge, am I trying to assess?
   - What should my students know?
   - At what level, should my students be performing?
   - What type of knowledge is being assessed?

3. **Audience:** Audience may be students, teachers, parents, community & experts.

4. **The task or activity:** After defining the purpose of the assessment, choose the task to be accomplished. You can account on the following things, to choose an activity, for assessment:
   - Time constraints
   - Availability of resources in the classroom
   - Sample data to reflect student's quality work
   - Formal & informal assessment: Formal means children are aware of being assessed and in later they are not aware. For example, students can be assessed while interaction with other children about their work habits

5. **Procedure:** Follow step one to step seven.

6. **Explicit criteria:** You must develop your own criteria most of the time. Following steps will help you to develop the criteria
   - Identify the overall performance or task to be assessed, and perform it, or imagine you are performing it.
   - List important aspects of the performance or product.
   - Try to limit the number of performances criteria, so they can all be observed during pupil's performance.
• Involve group of teachers to think through the important behaviors included in the
task.

• Express the form of observable behavior

• Avoid ambiguous words that cloud the meaning of performance criteria

• Arrange the performance criteria in the order in which they are likely to be observed.

7. Assessment:

• Open ended or extended response exercises: These are questions or prompts that are required for exploring a topic.

• Extended tasks: These are assignments that require sustained attention in a single work area. For e.g.: revising a poem, hands on learning on the same concept.

• Portfolios: These are selected collection of variety of performance-based work.

Using this information, you can give feedback on a student's performance, either in the form of a narrative report, or a grade. It can be in the following form:

• Checklist approach: Just tick mark whether or not the following elements are present in the performances.

• Narrative/Anecdotal approach: Written reports about what is done during a performance.

• Rating scale approach: To what degree, the standards are met. Like “skill barely present” to “skill extremely well executed.”

• Memory approach: This approach recalls and determines, whether a student was successful in performing the task. This technique is generally not recommended.

Contd...
Sample performance assessment sheet is given below:

<table>
<thead>
<tr>
<th></th>
<th>Accurate &amp; impressive (level 1)</th>
<th>Accurate (level 2)</th>
<th>Inaccurate (level 3)</th>
<th>Many Inaccuracies (level 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance indicator A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance indicator B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance indicator C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>For e.g.</strong> Story retelling</td>
<td>Remembers every important detail</td>
<td>Main ideas represented clearly, but not completely</td>
<td>Main idea is not presented clearly</td>
<td>The main idea is not evident</td>
</tr>
<tr>
<td></td>
<td>Comprehension and reproduction are accurate and impressive</td>
<td>Comprehension and reproduction are quite accurate.</td>
<td>Comprehension and reproduction are incomplete.</td>
<td>Comprehension and reproduction are absent</td>
</tr>
</tbody>
</table>
At last, given below is Tri-Assessment chart of multiple intelligences, which includes the assessment activities from all three assessment techniques, namely, traditional, portfolio, and performance assessment. You can make your own chart by adding or removing activities according to the age group of children:

<table>
<thead>
<tr>
<th>Assessment Category (Multiple Intelligences)</th>
<th>Traditional</th>
<th>Portfolio (product/process)</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal</td>
<td>Label a diagram; script; oral questions; biography; novel; short story</td>
<td>Written essay; story; poem; biography; diary; journal</td>
<td>Interview; monologue; dialogue; presentation</td>
</tr>
<tr>
<td>Logical</td>
<td>True/False test; symposium; multiple choice test; outline; note cards</td>
<td>Computer printout; research report; Venn diagram; matrices; time line; articles</td>
<td>Debate; argument; presentation; rubric; computer program</td>
</tr>
<tr>
<td>Visual</td>
<td>Fill in the blanks; figural representation; symbol; show your work; diagram; matching</td>
<td>Storyboard; scrapbook; props; comics; art exhibits; pictures; concept maps; photographs</td>
<td>Videotapes; slides; films</td>
</tr>
<tr>
<td>Bodily/kinesthetic</td>
<td>Model building; outdoor education; field trip</td>
<td>Science fair project; models; lab results</td>
<td>Science lab demo; dance; dramatic performance; sport; game</td>
</tr>
<tr>
<td>Musical</td>
<td>Mnemonics; rote memory; song; rhyming poem; choral reading</td>
<td>Written, jingle, song,</td>
<td>Musical instrumental demo; voice demo; audiotape; jingle</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>Teacher, comments; peer editing; pen pal; invitation</td>
<td>Dialogue journals; cooperative learning product</td>
<td>Think aloud; telephone conversation; student-led conference</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>Open-ended essay; visualization; self-discovery; inquiry</td>
<td>Goals statement; homework; rough drafts; self-assessment</td>
<td>Monologue; portfolio presentation; student planned conference</td>
</tr>
<tr>
<td>Naturalist</td>
<td>Identify plants; categorize rocks; label star charts</td>
<td>Catch butterflies; collect shells; gather insects</td>
<td>Planting; observe nests; field trips; photography</td>
</tr>
</tbody>
</table>
Activity 4

Objective:
- To identify characteristics of multiple intelligences.
- To understand multiple intelligences with reference to famous personalities.

Material: 20 cards for twenty participants. On 10 cards, write the characteristics of each intelligence and on the other 10 cards write the name of some known personality from each intelligences.

Time: 10-15 Minutes

Method:
- Distribute cards among participants.
- Ask them to identify characteristics and personality with respective intelligences.
- Now ask them to associate each characteristic with personalities.

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>PERSONALITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishes and lives by ethical value system</td>
<td>Ritu Beri</td>
</tr>
<tr>
<td>Can create original composition or musical instruments</td>
<td>Mahtma Gandhi</td>
</tr>
<tr>
<td>Listens and responds to the sound, rhythm, and variety of spoken words</td>
<td>Medha Patkar</td>
</tr>
<tr>
<td>Perceives and produces mental imagery, thinks in pictures, and visualize in detail</td>
<td>Sitara Devi</td>
</tr>
<tr>
<td>Explores human and natural environments with enthusiasm</td>
<td>Ravi Shankar</td>
</tr>
<tr>
<td>Recognizes and uses a variety of ways to relate with others</td>
<td>Rabindranath Tagore</td>
</tr>
<tr>
<td>Strives for self actualization</td>
<td>Abdul Kalam</td>
</tr>
<tr>
<td>Demonstrates balance, grace, dexterity and precision in physical tasks</td>
<td>Swami Vivekanand</td>
</tr>
<tr>
<td>Poses and test hypotheses for experiments</td>
<td>Sanjeev Kapoor</td>
</tr>
<tr>
<td>Notice relationship in nature</td>
<td>Mother Teresa</td>
</tr>
</tbody>
</table>
Exercise:

- Indicate whether the following statements are old or new form of assessment thinking:

<table>
<thead>
<tr>
<th>Statement</th>
<th>OLD</th>
<th>NEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students learn in the same way</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involves a variety of testing instruments for assessment like performance, portfolios.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment is done separately, from the curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children can be best assessed, from the outside testing instruments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The student is an active and a responsible learner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focuses on the content of the curriculum rather than on the process of learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human factor is involved in the assessment process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitivity to individual differences, developmental levels and forms of expertise.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation is the best tool, for the assessment of young children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young children can only be assessed by teachers or experts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement of parents in assessment process can provide useful information about students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback of assessment should be given to parents &amp; community</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- What is the purpose of Tri assessment model?
- What are the three different methods of assessment in Tri assessment model?
- What is H. O. T. S.?
- Can you illustrate an example of a portfolio assessment?
- What are the essential steps in planning a performance assessment?
- How does a portfolio assessment differ from a performance assessment?
Dispelling MI Myths

Each intelligence should be incorporated in every lesson

Surrounding students with the various intelligences is a good way to address MI

There is significant merit in formally labeling each student’s intelligence

Children should always be allowed to choose which intelligences they wish to pursue.
Summary

Multiple intelligences theory as the name suggests includes more than one intelligence. This theory challenges singular notion of intelligences and also the fact that intelligence can be measured in quantity. This theory includes nine intelligences which are:

- Verbal –Linguistic: Think in words
- Logical –Mathematical: Think in numbers and follow the logic
- Visual- Spatial: Thinks in images
- Musical – Rhythmic: Sensitive to music and patterns in environment.
- Bodily- Kinesthetic: Learning by doing
- Interpersonal: work in groups
- Intra personal: work alone
- Naturalistic: Keen observer of environment
- Existential: Curious about the human existence.

Intelligences are product of nature and nurture. Every individual is intelligent and possesses all intelligences but according to varying strengths and limitations.

Multiple intelligences theory helps to plan a curriculum in such a way so that it can cater individual needs of children. Teachers can design lesson plans utilizing various strategies and active learning activities based on the multiple intelligences.

Assessment in MI theory goes in hand, with curriculum development. When teachers are involved in curriculum development, they can efficiently assess children. Assessment in actual working condition is considered, as true assessment, as it gives insight, how problem is solved. Instead of assessing only with objective measures, teacher can in addition use portfolio and performance assessment methods.
Glossary

**Alternative Assessment:** It is an alternative to traditional assessments.

**Assessment:** the process of gathering, describing, or quantifying information about performance

**Authentic Assessment:** A form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application, of essential knowledge and skills. Student performance on a task is typically scored on a rubric to determine how successfully the student has met with specific standards.

**Criteria/Indicators:** Characteristics of good performance on a particular task.

**Criterion-referenced assessment:** An assessment where an individual's performance is compared to a specific learning objective or performance standard and not to the performance of other students.

**Curriculum:** The aggregate of courses of study given in a learning environment. The courses are arranged in a sequence to make learning a subject easier.

**Deductive reasoning:** A logic model in which assumptions or hypotheses made on the basis of general principles.

**Formative assessment:** Assessment that provides feedback to the teacher for the purpose of improving instruction.

**Higher Order thinking (HOT):** A complex level of thinking that entails analyzing and classifying or organizing perceived qualities or relationships, meaningfully. Also, by combining concepts and principles verbally or in the production of art works or performances. And finally, synthesizing ideas into supportable, encompassing thoughts or generalizations that hold true for many situations.

**Hypothesis:** A predictive statement about what one would expect to find or occur if a theory is correct.

**Inductive reasoning:** A logic model in which general principles are developed from the information gathered.

**Learning Outcomes:** Learning outcomes describe the learning mastered in behavioral terms at specific levels. In other words, what the learner will be able to do.

**Mural:** A painting applied to the wall.

**Norm-referenced test:** An objective test that is standardized on a group of individuals, whose performances are evaluated in relation to the performances of others.
Measurement: Process of quantifying any human attribute, pertinent to education without necessarily making judgments or interpretations.

Metacognition: Refers to an individual's ability to think about his/her own thinking and to monitor his/her own learning.

Performance assessment: Also known as alternative assessment, authentic assessment, participatory assessment. Further more, it is a form of testing that requires students to perform a task rather than select an answer from a ready-made list.

Performance standards: Explicit definitions of what students must do to demonstrate proficiency at a specific level on the content standards

Portfolio assessment: A portfolio is a collection of work, usually drawn from students' classroom work.

Rating scales: Values given to student performance.

Reliability: The degree to which a measure yields consistent results.

Rubric: A scoring scale used to evaluate student work. A rubric is composed of at least two criteria, by which the student’s work is to be judged on a particular task and at least two levels of performance for each criterion.

Semantic mapping: Semantic mapping is a strategy for graphically representing concepts. It assumes that there are multiple relations between a concept and the knowledge that is associated with the concept.

Validity: It measures what it claims to measure.
References


APPENDIX E (II)

Lesson Plan 1

Concept: Animals
Day:
Date:
Age: 3-4 Years
Teacher: Child: 1: 10
Time needed for each activity: 20-25 Minutes
Teaching Aids: ABC's of animal's worksheet, Flash cards, Individual worksheets of animals & their babies, cut outs of animals from home, clay & plastic animals.
Aim: Children will be able to identify different animals, their babies & characteristics.
Objectives:
Children will be able to identify animals and their babies.
Children will be able to illustrate characteristics of different animals.
Children will be able to apply their knowledge to differentiate animals based on their characteristics.

Multiple intelligences activities:

Verbal/ Linguistic: ABC's of animals
Introduction: The teacher will ask children to name the animals they know. After discussion, she/he will ask children to turn backwards to the teacher. Meanwhile she will post some animal flash cards, starting with the letters, A, B, C, D, and E. Now she/he will ask children to turn back and look at flannel board. Gradually, she/he will show all flash cards and ask children, if they can identify them.
Presentation: Teacher will first tell the characteristics of the animal and then introduce the name of animals, with pictures. She/he will also try to imitate sound of that animal, or act to make the presentation more interesting.
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Alligator</td>
<td>Butterfly</td>
<td>Crab</td>
<td>Dolphin</td>
</tr>
<tr>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
</tr>
<tr>
<td>Elephant</td>
<td>Frog</td>
<td>Giraffe</td>
<td>Horse</td>
</tr>
<tr>
<td>I</td>
<td>J</td>
<td>K</td>
<td>L</td>
</tr>
<tr>
<td>Iguana</td>
<td>Jellyfish</td>
<td>Kangaroo</td>
<td>Lizard</td>
</tr>
<tr>
<td>M</td>
<td>N</td>
<td>O</td>
<td>P</td>
</tr>
<tr>
<td>Mouse</td>
<td>Nautilus</td>
<td>Owl</td>
<td>Panda</td>
</tr>
<tr>
<td>Quail</td>
<td>Rhinoceros</td>
<td>Sea Horse</td>
<td>Tiger</td>
</tr>
<tr>
<td>-------</td>
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<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>Sea Urchin</td>
<td>Vampire Bat</td>
<td>Walrus</td>
<td>X-ray</td>
</tr>
<tr>
<td>Yellow Jacket</td>
<td>Zebra</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Recap:** Teacher will give children the colouring pages to colour animals.

**Logical/ Mathematical:** Arrange in ascending order

**Introduction:** "Children, look at me. I am going to do something," says the teacher. We will find out which animal is taller and, which one is smaller. Then she/he will randomly stick the flashcards on flannel board.

**Presentation:** The teacher will stick animals in random order. Now, she/he will ask
children to guide her, arrange them in ascending order.

**Recap:** Divide the children in to groups (3 to 4 children in each group) and invite a group of children, to repeat the order on the flannel board.

**Visual/ Spatial:** Clay Modeling

**Introduction:** The teacher will give students clay and give some models of animals, and ask them to create their own clay model of favorite animals.

**Presentation:** The teacher will make two or three clay models, and ask children to identify the animals and create their own models.

**Recap:** Discussion on the animals created by children.

**Bodily/ Kinesthetic:** Act it out

**Introduction:** The teacher will assign children roles of different animals and will ask them to form a circle. Then she will demonstrate acts of different animals. She will play music and when she calls out the names of animal, children assigned the role of that particular animal will come out and act.

**Presentation:** The teacher will play music and children will follow the instruction. Suppose she/he calls out 'Monkey', then children with this role will come in between and jump from one place to other. Similarly, children can act out for other animals like, ‘Lion’ by making a roaring sound and showing claws, ‘Elephant’ by swinging the hands up and down etc.

**Recap:** The teacher will compliment children for their performance and they will discuss the characteristics of animals.

**Musical/ Rhythmic:** Sing a poem

**Introduction:** The teacher will ask the children, “do you want to sing a poem with me? We will be enjoying acts of different animals”.

**Presentation:** The teacher will start singing the poem with actions and then ask the children to follow her. She can add as much number of animals to the rhyme.

Sung to: “The Mulberry Bush”

Oh, if I were a tiny snake,
a tiny snake, a tiny snake.
Oh, if I were a tiny snake,
I'd slither around the zoo.
Oh, if I were an elephant,
an elephant, an elephant.
Oh, if I were an elephant,
I'd march around the zoo.
Oh, if I were a kangaroo,
a kangaroo, a kangaroo.
Oh, if I were a kangaroo,
I'd hop around the zoo.

Recap: The teacher will show flashcards of animals and ask them to identify.

**Intra personal:** Match animals and their babies.

**Introduction:** The teacher will talk to the children about different animals, discussed earlier. Then she will show pictures of their babies from a 'big book'.

**Presentation:** The teacher will give worksheets to the children to match animals, with their babies. Children will match the pictures by using crayons.

**Recap:** After children have completed this activity, teacher will ask each child whether they have done their sheets correctly.

She/he will place the pictures of adult animals in one basket and their young ones in the other. Then, she/he will divide the children into two groups (I & II). Now, one child from group I take out the picture and another child from group II shall identify its off spring. Every child will have an opportunity to play this game.
<table>
<thead>
<tr>
<th>Name:</th>
<th>Class:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

Help the mummy's to find their babies:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Cat" /></td>
<td><img src="image2" alt="Hyena" /></td>
</tr>
<tr>
<td><img src="image3" alt="Tiger" /></td>
<td><img src="image4" alt="Puppy" /></td>
</tr>
<tr>
<td><img src="image5" alt="Kangaroo" /></td>
<td><img src="image6" alt="Kitten" /></td>
</tr>
<tr>
<td><img src="image7" alt="Dog" /></td>
<td><img src="image8" alt="Tiger" /></td>
</tr>
</tbody>
</table>

Lesson plan
**Interpersonal: Collage**

**Introduction:** The teacher will ask children to take cutouts of their favorite animals and then they will make a collage out of these cutouts with her/his help.

**Presentation:** Teacher will keep a drawing sheet on the floor/table and ask, each child to paste animal cutouts on the sheet.

**Recap:** The teacher will ask the children, as to why these animals are their favorite. What will they do, if they come to their classroom?

**Naturalist: Visit to Zoo**

**Introduction:** The teacher will inform the children that they will be going to visit the zoo that day. There, they will have an opportunity to watch their favorite animals.

**Presentation:** The Children will visit the zoo. They will be allowed to explore the zoo. The teacher will encourage them to ask questions while visiting each animal.

**Recap:** After the visit, the teacher will sing the following poem:

Sung to: “The Mulberry Bush”

We are going to zoo,
To the zoo, to the zoo.
We are going to the zoo,
Won't you join us too?
We'll see lions, tigers too,
Tigers too, tigers too.
We'll see lions, tigers too,
All at the zoo.

We will find some chimpanzees,
Chimpanzees, chimpanzees.
We will find some chimpanzees,
Swinging from the trees.
We will look for kangaroos,
Kangaroos, kangaroos.
We will look for kangaroos,
Hopping at the zoo.

Lesson plan
Self-evaluation: On the center of big chart, the teacher will write zoo. Each child will try to draw something, which she/he saw in the zoo.

Peer-evaluation: What are the remarks of other children on the explanation of that particular animal?

Teacher-evaluation: The teacher will write remarks about the child's understanding of the concept on that chart.
Lesson Plan 2

Concept: Seasons

Day:

Date:

Age: 3-4 years

Teacher: Child:: 1:10

Time needed for each activity: 30 minutes

Teaching Aids: Accessories related to winter season, sweater, cap, gloves, socks, etc., individual worksheets on match and count, sketch of sweater on worksheets, wool threads of different colour, flash cards of different seasons, and audio cassettes of different sounds of seasons, cotton, water jar, and big cutout of sheet in shape of glass.

Aim: Children will learn about different seasons and their characteristics.

Objectives:

Children will be able to identify different seasons.

Children will be able to explore characteristics of each season.

Children will be able to differentiate between all three seasons for a given activity.

Multiple intelligences activities:

Verbal/ Linguistic: Object talk with resource person (winter season).

Introduction: The teacher will tell the children that they will have a guest in the class today.

Presentation: The teacher will increase the curiosity, by asking whether they saw the guest. Then the trainee will call the resource person and introduce her. She will point out at the clothes worn by the resource person, and then would tell about each clothing in detail.

Recap: The teacher will recap the activity by giving children, a paper with a sweater drawn on it. She would also give a few small colourful wool pieces. The task for children would be, to stick these wool pieces on the sweater.
Logical/Mathematical: Match and Count in activity sheet

Introduction: The teacher will ask them to count and match objects with the number. She will show the numbers, and ask its value.

Presentation: The teacher will give each child the worksheet and give clear instructions to count and match the objects with the number given in the worksheet.

Recap: Draw three blocks on the floor and ask the children to jump one by one and count one to three.
<table>
<thead>
<tr>
<th>Name:</th>
<th>Class:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

**Match the following:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Umbrella" /> <img src="image2.png" alt="Umbrella" /> <img src="image3.png" alt="Umbrella" /></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><img src="image4.png" alt="Sweater" /></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><img src="image5.png" alt="Ice Cream" /> <img src="image6.png" alt="Ice Cream" /></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><img src="image7.png" alt="Leaf" /> <img src="image8.png" alt="Leaf" /> <img src="image9.png" alt="Leaf" /></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Bodily/Kinesthetic: Dance

Introduction: The teacher will ask the children, as to who likes to dance, and then she/he will introduce the song and motivate them to dance.

Presentation: The teacher will sing the song and dance with simple body movements, so that children can follow her movements.

Sung to: "The Mulberry Bush"

Here we go round the year again,
The year again, the year again.
Here we go round the year again,
To greet the different seasons.
Wintertime is time for breeze.
People start to sniff and sneeze.
It is too cold for plants to grow
Because it is the winter.
Here we go round the year again,
The year again, the year again.
Here we go round the year again,
To greet the different seasons.
In summer time, the days are hot.
Lime juice I drink a lot!
At the garden, I've got a spot
Because it is the summer.
Here we go round the year again,
The year again, the year again.
Here we go round the year again,
To greet the different seasons.
In rainy season, days are cloudy,
Nothing seems clean and tidy.
Plants grow green and green,
Because it is rainy season.
**Recap:** Put some flashcards on the flannel board and let the children answer the seasons by seeing the cards.

**Visual/Spatial:** Maze

**Introduction:** The teacher will ask the children what they would do when they feel cold.

**Presentation:** The teacher will show the worksheet and explain that Rahul is feeling very cold. They need to help him find his sweater, so that he can feel warm again (On next page)

**Recap:** The teacher will ask children what they love to eat in different seasons.

**Musical/Rhythmic:** Season corners

**Introduction:** The teacher will play the music to draw the attention of the children; and will ask to identify different sounds. For example, sound of raindrops, wind, thunder etc. Then she will tell “Children let us play a game.”

**Presentation:** The teacher will give the instruction in simple language; she will introduce two corners with the pictures of rainy season and winter season. She will ask them to run to the corner of rainy season, if they hear the sounds of raindrops or thunder. If they hear the sound of wind, they have to rush to the winter corner. She would also play another sound, which will signify staying at their places. Then she would ask them to close their eyes and carefully, listen to each sound and decide to go to respective corners.

**Recap:** She will play a song related to seasons and ask the children to enjoy and sing along.
**Intra Personal:** Individual Worksheets on rainy season.

**Introduction:** After discussing all seasons, the teacher will distribute sheets, having things from different seasons. For example, umbrella, sweater, fan, raincoat, cap/hat, and gumboots.

**Presentation:** The teacher will demonstrate by circling the diagram of the rainy season leaving the other seasons. Children will observe and circle the related drawings on their worksheets.

**Recap:** The teacher will check the sheet of children and ask why they have marked a particular diagram.

**Inter personal:** Collage

**Introduction:** The teacher will ask the children to bring cutouts of summer season from home. For a group of 10 children, draw a glass of lemonade on a big chart paper, cut the shape, and ask children, “What is this?”

**Presentation:** The teacher will tell the children, “this is the glass of lemon juice and we drink it, when we are thirsty and tired.” Today, we shall make a collage from the cutouts that you have brought from home. Then the children will stick their cutouts on the glass of lemonade.

**Recap:** Teacher will ask them to sing a rhyme related to summer.

Sung to: "Farmer in the dell"

In the summer it is hot
In the summer it is hot
Oh, when it's hot,
I (activity) a lot
In the summer when it's hot.

(Let each child name his/her favorite summertime activity to sing in the song like sweat, drink etc.)
Circle the things we use in rainy season:
Naturalistic: Science experiments

Introduction: The teacher will ask the children, what happens in the rainy season? Then, she will do an experiment.

Presentation: The teacher will take a bunch of cotton and treat it, as a cloud and will squeeze it. Then she will ask the children, whether water oozed out from the cotton. She will again wet the cotton and squeeze it. She will repeat the question “children did you see the difference?” Finally, she will explain the analogy between this experiment and rain.

Recap: The teacher will give opportunity to every child, to do this experiment.

Evaluation:

Self-evaluation: Each child speaks for a minute about his/her favorite season, what knowledge she/he gained from each season, through different activities.

Peer-evaluation: After a child speaks, ask other children to identify season.

Teachers-evaluation: The teacher will note down the key points of the explanation given by each child and write the comments on the assessment sheets of each child, which can later be added, to the portfolio.
LESSON PLAN 3

Concept: Fruits
Day:
Date:
Age: 3-4 years
Teacher: Child:: 1:10

Time needed for each activity: 25-30 minutes

Teaching Aids: Stick puppets of fruits like Banana, Orange, Apple, Grapes, Pineapple and Chickoo, fruit puzzle, Orange, fruits for salad, chopper board, knife, empty basket, empty container and serving glasses, individual worksheets to match colour with fruits, pencil, eraser, crayon of different colours and drawing sheets.

Aim: Children will be able to identify different fruits and their importance in daily diet.

Objectives:
Children will recognize various fruits.
Children will have discussion on fruits.
Children will use sensory approach to differentiate fruits.

Multiple intelligences activities:

Verbal/Linguistic: Say “Hello”

Introduction: The teacher will tell children, that today there are so many guests in our class to welcome you, all of you close your eyes.

Presentation: Teacher will show stick puppets of Banana, Orange, Apple, Grapes, Pineapple and Chickoo, one by one. She will take one puppet of Banana and say, “Hello, I am banana. I have come to your class to meet you. Do you like me? She will do the same for rest of the fruits. After introducing all the fruits, she will tell all fruits are very happy to welcome you all.

Recap: Teacher will revise this activity by showing and speaking about ABC’s of fruits. Each fruit has a picture and the letter from which it starts.
<table>
<thead>
<tr>
<th>Apple</th>
<th>Banana</th>
<th>Custard Apple</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Apple" /></td>
<td><img src="image" alt="Banana" /></td>
<td><img src="image" alt="Custard Apple" /></td>
<td><img src="image" alt="Date" /></td>
</tr>
<tr>
<td>F Fig</td>
<td>G Grapes</td>
<td>H Hazelnut</td>
<td>J Jackfruit</td>
</tr>
<tr>
<td><img src="image" alt="Fig" /></td>
<td><img src="image" alt="Grapes" /></td>
<td><img src="image" alt="Hazelnut" /></td>
<td><img src="image" alt="Jackfruit" /></td>
</tr>
<tr>
<td>K Kiwi</td>
<td>L Litchi</td>
<td>M Mango</td>
<td>O Orange</td>
</tr>
<tr>
<td><img src="image" alt="Kiwi" /></td>
<td><img src="image" alt="Litchi" /></td>
<td><img src="image" alt="Mango" /></td>
<td><img src="image" alt="Orange" /></td>
</tr>
<tr>
<td>P Papaya</td>
<td>R Raspberry</td>
<td>S Strawberry</td>
<td>T Tamarind</td>
</tr>
<tr>
<td><img src="image" alt="Papaya" /></td>
<td><img src="image" alt="Raspberry" /></td>
<td><img src="image" alt="Strawberry" /></td>
<td><img src="image" alt="Tamarind" /></td>
</tr>
<tr>
<td>V Vanilla</td>
<td>W Watermelon</td>
<td>X Xigua</td>
<td>Y Yellow Sapote</td>
</tr>
<tr>
<td><img src="image" alt="Vanilla" /></td>
<td><img src="image" alt="Watermelon" /></td>
<td><img src="image" alt="Xigua" /></td>
<td><img src="image" alt="Yellow Sapote" /></td>
</tr>
</tbody>
</table>

Lesson plan
Logical/ Mathematical: Fruit Puzzle

Introduction: The teacher will discuss the fruits and their shapes by showing pictures or by sticking puppets. Now, teacher will bring some fruit puzzles in the classroom and divide children into groups. In each group, there will be 2-3 children.

Presentation: Teacher will show puzzles to children and will instruct them, to fix puzzles of fruit at the respective places. Teacher can make their own fruit puzzles on the cardboard and cut into pieces to form a puzzle.

Recap: Children will sing a rhyme on Apple.

Sung to: “Twinkle – twinkle little star”

Five red apples high in a tree,
One looked down and winked at me.
I shook that tree as hard as I could,
One fell down....mmmm it was good!

(Continue rhyme until all the apples have fallen from the tree.)

Bodily/ Kinesthetic: Fruit Salad.

Introduction: The teacher will ask the children whether they like fruits. Then she will ask them, how fruits keep us healthy. She will explain to them about making fruit salad. We mix different fruits with little sugar and salt in fruit salad.
**Presentation:** Teacher will draw the starting and the finishing lines. Then she will make four marks between both the lines. On three marks, there will be three children, with the fruits names like mango, apple and grapes respectively. Finally, on fourth mark there will be two children, one for sugar and one for salt. When teacher says ‘Fruit Salad’, all fruits in a row run towards salt and sugar and make a circle by holding hands, as if they are mixing with each other to make fruit salad. After that they will be running towards finishing line. Teacher could have more than three fruits at a time to make activity more interesting.

**Recap:** Teacher can discuss how healthy it is, to eat fruits as they make us strong. Teacher can sing following rhyme in the tune she/he wishes.

Lots of fruits we must eat,
Less of chocolates, And less of sweets.
Fruits make you strong,
They make you live long.
They give you energy to play,
That will last all the day.

**Visual/ Spatial:** Match fruit with colour

**Introduction:** The teacher will do this activity once she/he introduces the concept of fruits thoroughly. She will distribute individual worksheet that will contain sketches of five fruits on one side and the respective colours on the right side.

**Presentation:** Teacher will ask children, if they remember colour of fruits. Then she will ask colours of 2-3 fruits, which were not there in the worksheet. Further, she will ask children to match fruits with the colours in the given sheet. Name of the fruits can be Banana, Orange, Pear, Apple and Blue Berries with the colours Yellow, Orange, Green, Red and Violet, respectively.

**Recap:** Children will then colour their favorite fruits in the given sheet.
Help the fruits to get their colour back:

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td>Black</td>
</tr>
<tr>
<td>Apple</td>
<td>White</td>
</tr>
<tr>
<td>Pear</td>
<td>Black</td>
</tr>
<tr>
<td>Cherry</td>
<td>Grey</td>
</tr>
</tbody>
</table>
Musical/Rhythmic:

Introduction: "Today we will sing a lovely poem. Would you like to sing along with me?" the teacher will ask.

Presentation: Teacher will start singing the poem while the children repeat after her. Teacher can sing following rhyme in the tune she/he wishes.

   Apples fresh and juicy too,
   Good for me and good for you.
   Mangoes ripe and yellow,
   Makes you a healthy fellow.
   Chickoos sweet and chickoos brown,
   Commonly seen all over the town.
   Oranges and sweet lime,
   Peel them and eat them you will be fine.
   Pineapples also very nice,
   Have some juice or have a slice
   Guavas with little seeds,
   Oh! So many and crunchy to eat
   Green and purple, grapes in a bunch
   Sweet and sour I love to munch
   Bananas are the important treat,
   That makes my diet more complete.

Recap: Teacher will show models of the fruits named in the poem and start singing again.

Interpersonal: Orange Juice

Introduction: The teacher will inform the children today they will help her to make the juice, as she cannot do it alone. Then she will ask them; tell me the name of the fruit, which is orange in colour and, which is little sweet and more sour. Teacher will give more clues until children guess correctly.

Presentation: Teacher will place hand juicer on the centre of table. She will ask five
children to bring oranges. She will place a chopper board, a knife, an empty basket and an empty container on the table. She will make juice after cutting the oranges into halves. She will be careful that the children do not touch knife. Once this procedure is over, teacher will ask the children, one by one to mix sugar in the juice. Then remaining few children will stir the juice in the container. Finally, the teacher will serve juice to the children.

Recap: Recap your activity by singing this poem:

Oranges are juicy fruits
Many are big, \textit{(show a large orange)}, some are \textit{cute}
You get orange juice with some squeezing and cutting
\textit{(Pretend to squeeze the orange)}
One even comes with a bellybutton
\textit{(Show the open end of a Navel orange)}
So when you need a healthy treat
Peel yourself an orange – sweet to eat!

**Intrapersonal:** Free drawing

**Introduction:** This activity will be done after a nature walk in botanical garden.

**Presentation:** The teacher will ask the children to draw and then colour their favorite fruit, which they had seen in their recent visit.

Recap: They will attend puppet show dramatized by the teacher.

Once there was a boy named Rahul. Rahul always wanted to eat candy and chocolates but he hated fruits. One day Rahul got fever; he took medicines, but could not fully recover, as he was reluctant to eat fruits. His mother told him to eat some fruits but Rahul refused. When Rahul reached school after recovering, he was not able to run fast, could not play with his friends. He again fell sick! This time, he realized the importance of eating fruits so he started eating fruits and became energetic again.
Naturalistic: Visit to botanical garden

Introduction: “Children today we will visit a garden. There we will see many trees of fruits. You have to carefully watch every tree,” the teacher says.

Presentation: The children will be visiting botanical garden and will be observing trees of different fruits. The teacher will answer the queries of children at the same time.

Recap: Teacher will have a discussion in the classroom about the visit. This will give every child an opportunity to speak about the visit.

Evaluation:
Self-evaluation
Peer evaluation
Teacher's evaluation
LESSON PLAN 4

Concept: Transport
Day:
Date:
Age: 3-4 years
Teachers: Child:: 1: 10
Time needed for each activity: 25-30 minutes
Teaching Aids: Cutouts of different transportation, flannel board, worksheets of different transport and finding the way, dice with vehicles drawn on it, crayons, watercolour, colour plate and clay.
Aim: The children will learn about air, water, and land transportation.
Objectives:
Children will identify modes of transportation.
Children will be able to distinguish between land, air, and water transportation.
Children will be able to place different modes of transportation under the correct category viz. land, air, or water.
Verbal/linguistic: Magic Bag
Introduction: The teacher will ask the children, if they would like to see a magic. Then she will ask them to tell, how people go from one place to another. The teacher could provide them some options like bus, car, train, or aeroplane.
Presentation: The teacher will show them a bag containing cutouts of different transport. The teacher will make a sound while taking out a particular cutout; and children have to guess, what is it? For example swoooooooooooosh...sound of an aeroplane; chuk-chuk of train etc. At the same time, she will also ask which mode of transport is it. She will put each cut out on the flannel board one by one.
Recap: The children will sing a rhyme after completing this activity:
Get a ticket, ticket, ticket for the train.
Get a ticket, ticket, ticket for the train.
Don't stand out in the wind and rain.
Get a ticket, ticket, ticket for the train.

Lesson plan
Additional verses make the following substitutions:

Bus; climb aboard, you can ride with us.
Plane; don’t stand out in the wind and rain.
Boat; The waters is too cold to swim or float.
Bike; It's way too far to walk or hike.

Logical/ Mathematical: Match the pictures

Introduction: The teacher will ask children to complete worksheet on transportation.

Presentation: The teacher will distribute worksheet to children with the pictures repeated, such as the helicopter, aeroplane, car, auto, train, ship, boat, cycle, and scooter.
The children have to circle same pictures with same colour.

Recap: Children will be making different transportation from the given blocks.
Name: 

Topic: 

Class: 

Date: 

Circle the similar pictures with same color crayon:
Bodily/Kinesthetic: Roll a dice

Introduction: Children, do you want to play a game? Today, we will act like the transport vehicles.

Presentation: The teacher will make a dice with one side blank and other five sides with different transport modes. Each child will throw the dice, and act as the transport mode of the dice. If blank side comes, the child will skip his/her chance to act.

Recap: The teacher will ask the children if they like this activity. Then she will ask the children to roll the different parts of the body like the wheels of a bus. She can start by saying:

"Roll your head like the wheels on a bus."
"Roll your shoulders like the wheels on a bus."
"Roll your hands like the wheels on a bus."
Roll another part of your body like the wheels on a bus (fingers, toes, arms, legs, bum, knees, etc.)
"Each time you hear this little bell, roll another way."

Visual/Spatial: Find the way

Introduction: “Do you know children; Riya is going to school but is unable to find the way to her bus. Will you help her, find the bus?” teacher asks.

Presentation: The teacher will distribute worksheets to children to find the way to bus. One of the ways will lead to the auto and the other to the school bus. The children have to choose the correct path to reach the bus.

Recap: After this activity, the children will be singing poem:

Children perform actions and sounds suggested by the words

The wheels of the bus go round and round,
Round and round, round and round
The wheels of the bus go round and round
All through the Mumbai town.

The driver of the bus says Move On Back! Move On back! Move On Back!
The driver of the bus says Move On Back!
All through the Mumbai town.
Substitute these words also:
The horn of the bus goes, beep beep beep.
The wipers on the bus go swish, swish, swish.
The doors on the bus go, open and shut.
The bell on the bus goes, ding-ding-ding.
The baby on the bus goes, "Wa-Wa-Wa"...
The people on the bus say, "We had a nice ride"...
The people on the bus go up and down, up and down, up and down.
The people on the bus go up and down all through the Mumbai town.
Help Riya to find the school bus:
Musical/ Rhythmic:

Introduction: The teacher will introduce this activity, once the children know the concept. The teacher will ask children to sit quite in a circle.

Presentation: Teacher will bring a recorder in the classroom and play sounds, a few of them related to transport and the remaining unrelated, to make the children more sensitive towards sounds. The children have to recognize the sound and name the vehicle to, which it belongs.

Recap: The children can sing the poems learnt.

Interpersonal: Group Activity (make-believe play)

Introduction: Children today we will go to the ground to play a game. She will make four groups of four children each. Now each group will be assigned a transport mode; bus, train, boat and aeroplane.

Presentation: The teacher will teach children to act like a bus, boat, train and aeroplane. Each group will be given five minutes to perform. Four children will become passengers, who will board at different stations. All the groups have to go round the playground and act in synchronization. (The teacher may vary mode of transport according to her convenience.)

Recap: The children will do palm printing on a large cutout of a ship. Each child will print his/ her palm, dipped in a colour, on the cut out.

Intrapersonal: Clay modeling

Introduction: The teacher will discuss the concept of transport in brief. She can also give opportunity to children, to ask questions related to theme.

Presentation: The teacher will distribute clay balls among children to make their favorite vehicle.

Recap: Children will explain the models they have made to rest of the class. Teacher can paste photos of best models on flannel board next day.
Naturalistic: Visit to an Auto garage

Introduction: “Today we are going to visit an auto garage. There you will see how vehicles are made up of different parts”. Teacher informs.

Presentation: The children will board a bus. The bus attendant will give dummy tickets to each child. Tickets will have seat number printed/written, so that children can sit accordingly. Then after reaching the auto garage, they will watch the parts of a car, a mini bus and many other vehicles. The mechanic will show them all the main parts of the car/bus.

Recap: The teacher will draw a car in the centre of a white board and ask each child, to convey his/her observation. The teacher will also write comments on her observation of each child. After the completion of this activity, she could click photo of this figure and keep it for future reference.

Evaluation:
Self-evaluation
Peer evaluation
Teacher's evaluation
LESSON PLAN 5

Concept: Aquatic animals

Day:

Date:

Age: 3-4 years

Teacher: Child:: 1:10

Time needed for each activity: 25-30 minutes.

Teaching Aids: A story chart, shells of various sizes, big chart paper, coloured tissue paper, individual worksheets of sea creatures and empty Pepsi cans.

Aim: Children will learn and explore aquatic animals.

Objectives:

- Children will recognize different sea creatures.
- Children will explore new vocabulary from sea life.
- Children will learn how sea creatures differ from other animals.

Multiple intelligences activities:

Verbal/ Linguistic: Picture story

Introduction: The teacher will do this activity, after some discussion on aquatic life. The teacher will ask the children if they want to hear a story.

Presentation: Then the teacher will start reading a story from the chart prepared in advance. She will pause, while showing the pictures and let the children guess, what it is.
The Sea

One day a got into his and rowed out to the

There he put down the , put on his and took his

Then he went in the . He saw

and some , and a lot of little . He even saw a nice

Far away he saw a so he went back to the
He pulled up the anchor and rowed back to the island.

He wished he had his camera to take pictures of the colourful, beautiful, little, nice, and even the big fish.

Recap: The teacher will ask the children, what the man saw in the sea. At the same time, she will again show the story chart to the children so that by looking at the pictures, they can recall the story.

Logical/ Mathematical: Sorting shells

Introduction: The teacher will show children, shells (different sizes) and, if not available, the teacher can take the cutout of shells, from paper (different colours). The teacher will talk about the shells and ask the children to play a game.

Presentation:

The teacher will distribute three shells of different sizes to each child, and they have to arrange them in ascending order.
Recap: The teacher will recap this activity by singing the following poem:

Sung to: "A, B, C...teach you ABC."

Five little seashells lying on the shore
Swish! Went the waves and then there were four.

Four little seashells cozy as could be
Swish! Went the waves and then there were three.

Three little seashells all pearly and new
Swish! Went the waves and then there were two.

Two little seashells sitting in the sun
Swish! Went the waves and then there was one.

One little seashells sad and all alone
I picked it up and we both went home.

Bodily/ Kinesthetic: Swim shark swim

Introduction: The teacher informs the class that today the children would play an interesting game, similar to 'Duck, Duck, and Goose game'. However, they will use the Whale and Shark, instead of the Duck and Goose.

Presentation: All the children will sit in a circle facing each other. One child will run around the circle saying 'Whale, Whale...' Then he will touch the head of a child and say 'Shark.' Now that child has to get up and chase the first child and the remaining of the children in the circle will say 'swim Shark swim', till the empty space is occupied. If the Shark grabs the first child, before occupying the empty space then he has to repeat the process. Otherwise, the Shark has to run around the circle and start the game again.

Recap: The teacher will conduct an activity, in which the children will colour an octopus on individual sheets.
Visual/ Spatial: Sea Mural (Wall painting)

Introduction: The teacher will do this activity, once the children have completed their previous activities individually.

Presentation: The teacher will collect the sketches drawn and coloured by children and cut them into proper shapes. Then she will stick them on the wall having sea base, with the help of children. This way they will be creating a mural. This is a fun activity in which the children could enjoy a lot and at the same time, feel proud, as their drawings are being displayed on the wall.

Recap: The teacher will recap this activity, by discussing different sea creatures, either from the picture book or from flash cards.

Musical/ Rhythmic: Shell Shakers

Introduction: The teacher will bring three empty Pepsi cans. She will cover them with red colour glaze paper. Then, she will tell children “we will create our own music.”

Presentation: The teacher will sort out shells of different sizes with the help of the children. Then, she will put the shells of similar sizes in each container. She will close the lid, start shaking the container, in rhythm, and sing the following poem:

Sung to: “Wheels of bus..”
The fish in the sea go swim, swim, swim
swim, swim, swim, swim, swim
The fish in the sea go swim, swim, swim
All through the Day
The lobsters in the sea go pinch, pinch, pinch
pinch, pinch, pinch, pinch, pinch
The lobsters in the sea go pinch, pinch, pinch
All through the Day
The octopus in the sea go wiggle, wiggle, wiggle
wiggle, wiggle, wiggle, wiggle, wiggle, wiggle
The octopus in the sea go wiggle, wiggle, wiggle
All through the Day
The crabs in the sea go click, click, click
click, click, click, click, click, click
The crabs in the sea go click, click, click
All through the Day

Recap: The teacher will ask the children to find out the containers, having the smaller and the larger shells, by just hearing the sound.

Interpersonal: Big Rainbow Fish

Introduction: The teacher will ask the children about the colours of the rainbow. Do you want to make a fish with many colours? She will show the sketch of big fish to them, and sing poem, to jumpstart the activity:

Sung to: “Ten little fingers...”
I’m a big fishy
watch me swim
Here is my tail
Here is my fin
When I want to have fun with my friends
I wiggle my tail an dive right in

Presentation:
Teacher will give the children a tissue paper of all seven colours of the rainbow. They have to tear it in small pieces. Then every child has to stick it with glue on the sketch of the big fish. Together in a group, they will make a big rainbow fish.

Recap: Teacher will again sing above poem with children as recap activity.
Intrapersonal: Colouring

Introduction: Teacher will introduce this activity, after discussing about sea creatures. Teacher can show flash cards or can use audio-visual aid.

Presentation:
The teacher will ask the children to colour the given sea creature. They can use the classroom pictures or the picture books for their guide. The children will colour the creatures of their wish. Teacher can give any sea creature to colour (On next page).

Recap: The teacher will cut the creatures into shape. Then she will ask the children to paste them on the wall, to make a mural.

Naturalistic: Visit to an Aquarium

Introduction: The teacher will inform the children that they would be visiting the aquarium. Then she will ask them, what would they like to see there?

Presentation: While visiting the aquarium the teacher will try to explain the aquatic animals, which they have discussed in the classroom. The teacher will give opportunity to each child, to watch sea creatures closely.

Recap: The teacher will recapture, by showing the specimens of the sea creatures and ask the children to recognize them (the sea creatures).

Evaluation:
Self-evaluation
Peer evaluation
Teacher's evaluation
Name:  
Topic:  
Colour the following pictures:

![Dolphin and starfish](Image)

![Seahorse and fish](Image)

![Jellyfish](Image)

Lesson plan
LESSON PLAN 6

Concept: Garden
Day: 
Date: 
Age: 
Teacher: Child:: 1:10

Time needed for each activity: 25-30 Minutes
Teaching Aids: A pictorial chart of garden, leaves, flowers, pebbles, twigs, individual worksheets of a leaf, vegetables, flowers and fruits, spade, hoe, watering can, different sizes of flowerpots, long broomstick, and shakers made from pebbles and a worksheet of vase without flowers.

Aim: Children will be able to acquire knowledge about garden.

Objectives:
Children will learn vocabulary related to Garden.
Children will be able to identify different garden equipments.
Children will explore garden using multi sensory approach.

Multiple intelligences activities:

Verbal/ Linguistic: Picture talk

Introduction: The teacher will ask the children, if they have ever been to a garden. “Ok! tell me what have you seen there”?

Presentation: The teacher will show a picture of garden and explain, each part of it. A garden can have many things. Most important are trees, plants, herbs, grass, flowers and mud. There may be many other things like fountain, fishpond etc.

Recap: The teacher will sing the following poem to recap:
Sung to: "Down by the station"
Out in the garden
Early in the morning
see the little plants all in a row
See the rows of roses
And the rows of lily.
Water, hoe, grow, and grow.

Logical/ Mathematical: Sorting
Introduction: “Children, I am stuck in a problem, will you help me?” Teacher asks. Then she divides the children in groups. There will be five children in each group (depends on the number of items).
Presentation: The teacher will mix the leaves, flowers, pebbles, and twigs in advance. She will ask each group, to separate things from this mixture. The children will sort out the mixture, as told by teacher.
Recap: As a recap activity, the children will count the items that they have separated from the mixture.

Bodily/Kinesthetic:
Introduction: The teacher will show the children the worksheet having leaf drawn on it and ask, what is it?
Presentation: The teacher will show how to trace the boundary of the leaf, to make the correct shape. Then, she will ask the children to do the same on their worksheets. Children will also colour the leaf.
Draw the leaf in bold and colour it:
Recap: The teacher will sing a poem after this activity and ask the children to repeat after her, with actions:

Sung to: “Wheels of the Bus”

The leaves on the trees turn orange and brown. . .

orange and brown. . . orange and brown

The leaves on the trees turn orange and brown

In the town.

The leaves on the ground go swish, swish, swish. . .

swish, swish, swish. . . swish, swish, swish

The leaves on the ground go swish, swish, swish

Down to the ground

The leaves on the trees come tumbling down,

tumbling down, tumbling down

The leaves on the trees coming tumbling down

Down to the ground

Visual/ Spatial: Garden Mural

Introduction: This activity will bring a garden to the classroom. The teacher will ask the children, if they would like to have garden in the classroom. “So let us make one!” She will create the background for an indoor garden by joining the drawing sheet together. She will draw two lines across the length of the drawing sheet, one to represent the top of the 'underground' part of the garden, and the other to represent the horizon. She will add a few trees, shrubs and fields.

She will use light crayons or pencils to colour the various parts of the murals, namely, brown underground, green grass, blue-sky, green shrubs, etc.

Presentation: The teacher will ask the children to colour the vegetables, flowers and fruits given them. She will help cut these vegetables, flowers and fruits on the drawing sheet. Then children will help her to add pictures of food in the respective places in the garden. For instance, the children with the help of teacher will place carrots below the ground (with the leaves of carrot above the ground), apples on a tree, berries on a shrub, and the grains in the field.
Food pictures can be added from time to time, so that the children can see their garden grow, as illustrated below

Recap: The teacher will ask the children, why they have placed apples on the trees or flowers on the plants. Later, she will explain to them by showing videos related to garden. This will help the children to establish an analogy, between the mural and the video clips.

Musical/Rhythmic: The Garden orchestra

Introduction: Teacher will introduce this activity, once the topic is introduced in the class. The teacher will take children to the garden, and will introduce them to the different gardening equipments, like spade, hoe, watering can, different sizes of flowerpots, long broomstick, and shakers made of pebbles.

Presentation: The teacher will make the sounds of different garden equipments, with the help of the music teacher.

- Hitting two spades together
- Digging with the hoe
- Hitting with wooden stick on a watering can
- Patting on three flowerpots of different sizes
- Cleaning ground with large broomstick
- Shaking shakers made from different sized pebbles

When all these are played in a simple jingle, it could catch attention of the children.

Recap: After completing of this activity the teacher can ask children to close their eyes and identify the sounds. She may also ask them, to play music with the above equipments.
**Interpersonal:** Plant a class garden

**Introduction:** The teacher will bring seeds and empty flowerpots in the classroom and ask children “Would you like to make your own garden?”

**Presentation:** The teacher will then bring toy garden sets in the classroom. She will show how to put a plant in a flowerpot. As illustrated in the diagram below, she will dig the mud in the pot with spade and put one or two seeds in the pot. Afterwards, she will put some water in the pot and place it in the sunlight. Finally, she will repeat the process, with the children in groups.

![Diagram of planting process](image-url)

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**Lesson plan**
Recap: The teacher will sing the following poem, along with children to the tune she/he likes:

Dig a little.
Dig a lot.
Dig a brand-new garden spot.
Plant a little.
Plant a lot.
Plant the seeds you bought.
Wait a little.
Wait a lot.
Wait much longer than you thought.
Pick a little.
Pick a lot.
Share the best flower you’ve got!

Intrapersonal: Decorate vase

Introduction: The teacher will show a vase with leaves and stems, but no flowers on it. She will ask the children, “Does this vase look nice? Will you help me in making it beautiful?”

Presentation: The teacher will show the children the flower cuttings of different colours. Then she will paste them on the empty space in the vase. She will give the children, their individual sheets and ask them to paste at the appropriate places.

Recap: The teacher will ask the children, if they liked flowers, and could they spell the names and colours of few flowers that they knew.

Naturalistic: Visit to Garden

Introduction: The teacher will tell the children that today they will visit a garden to see the things, which they have discussed and talked about in the classroom.

Presentation: The children will visit the garden with the teacher. She will discuss the things that they have done in the classroom. She will also, encourage them to ask questions, such as “What did you see? Where are the flowers? Which colour is it? Can
you see dragonflies or butterflies? Where are the birds? Which one is a tree and which is grass?"

They will also meet the gardener, who will show them how to plant a tree. He will also show how to take care of the plants and to keep the garden clean.

Recap: The teacher will ask the children to draw on the drawing sheet, their observations of the visit. Then she will put her comments in their drawing sheets.

Evaluation:

Self-evaluation
Peer evaluation
Teacher's evaluation
LESSON PLAN 6

Concept: Primary Colours

Day:

Date:

Age:

Teacher: Child:: 1:10

Time needed for each activity: 25-30 Minutes

Teaching Aids: Flash cards of story, beads of primary colour, classroom setting with different colour objects, individual sheets for matching and colouring, blocks of different colour, clay, gelatin paper, flowers, and cello tape

Aim: Children will learn about the colours.

Objectives:

Children will be able to identify primary colours.

Children will be able to relate objects with colour.

Children will be able to use fine and gross motor skills to learn about colours.

Multiple intelligences activities:

Verbal/ Linguistic: Story: “Three best Friends”

Introduction: The teacher will first show three colours to children viz. Red, Yellow and Blue. She can use either flash cards or a picture chart to tell a story. All children will sit in a circle and the teacher will be a part of it. She will also take primary watercolours, colour plate and brush with her. Once the teacher introduces the children with these colours, she will tell them a story.
Presentation:

RED and BLUE and were three best friends.

They played together and made new colours.

When RED and BLUE come together, a bright PURPLE appeared (She will mix respective colours and show children the result).

When RED mixed with , a shining ORANGE appeared.

However, a beautiful GREEN was the result, when BLUE and came together.

Due to their friendship whole world looked like a painted picture.

One day over a small matter, they quarreled amongst themselves. Then they stopped playing together.

RED and BLUE and were no longer friends.

There were no colours around. Like on tree, Motu elephant, Chu-chu mouse, birds, and butterflies. The forest lost its colour.

Every one in the forest was looking at each other and laughing, as each animal was looking so different. Everything looked so ugly and colourless.

Now nobody liked three friends RED, BLUE and . Seeing this, three friends became unhappy.

They realized that as long as they were friends, there was colour and happiness all around. They knew that no one liked them when they were not together. So they forgot their quarrel and became friends again.

Now the whole world became colourful and happy again.

Recap: As a recap activity, the teacher will ask the children all the primary colours, mix colours, and ask them to identify the secondary colours as told in the story.

Logical/ Mathematical: Guessing Game

Introduction: The teacher will inform the children that they will play a guessing game.

Presentation: The teacher will take yellow, red and blue beads in three fingers one by one. She will ask them to identify the colour. Then she will ask, as to what come next, in the fourth finger. Like this, she will continue asking. The teacher will also count the beads to make a pattern.

Recap: The teacher can vary the patterns and ask children, to identify the colours.
Bodily/ Kinesthetic: Touch the colour

Introduction: The teacher will introduce this activity, after children have learnt about the colours thoroughly. The teacher says, “Children we will play a game. Do you all know the primary colours?” Then she will show different objects of primary colours to the children. She will ask them to identify colours. She will have placed various colour objects in the classroom, before the arrival of the children, at different places where they can easily locate.

Presentation: The teacher will ask the children to touch the object of the colour, which she points to. For example, when she says “Yellow colour”, they have to touch the yellow objects in the classroom. Similarly, when she says ________ colour, they have to touch the ________ colour object.

Recap: Teacher will sing the following poem and ask the children to act, accordingly:

Sung to: "The Muffin Man"

Oh, can you find the colour______,
The colour ____ , the colour ____ ?
Oh, can you find the colour ______,
Somewhere in this room?

Visual/ Spatial: Match the objects

Introduction: The teacher will ask the children to identify the colour of some common classroom objects like color of wall, furniture, any display on flannel board etc. If they unable to recall the colour of objects, then she will show them the objects. So, they can relate with it.

Presentation: The teacher will distribute, each child a sheet having three things to match respective colours. These will be sketches of apple, lemon and peas.

Recap: The children will colour the fruits and vegetables as a recap activity.
**Musical/Rhythmic: Rhyme**

**Introduction:** The teacher will distribute red, yellow, brown, and blue colour blocks among children. She will make sure that every child has above mentioned colours blocks.

**Presentation:** Teacher will ask the children act, which is followed after the name of colour. Then she will sing the poem with colours and actions.

Sung to: "If you are happy and you know it"

If you are having red then shake your head,
If you are having red then shake your head,

If you are having red,
Then please shake your head.
If you are having, red then shake your head.

Others: Blue, touch your shoe
Yellow, shake like Jell-O. (Rotate hips)

**Recap:** The teacher will have all primary colour blocks in the basket. Gradually she will take one by one block out from basket and ask the children to identify the colour.

**Interpersonal:** Match the colour

**Introduction:** The teacher will do this activity, once children can identify the colours easily, she will ask them, if they want to play a game. She will revise the colour and give each child a small ball of different colour. They will be red, yellow, and blue.

**Presentation:** The teacher will ask the children to stand in a circle each holding a ball. Now she will call out the name of one colour, then the children, having ball of that colour, will run in the middle of the circle and shake hands with each other. She will complete this activity by calling the names of all colours, one by one.

**Recap:** The teacher will divide children in groups based on the colour of the ball that they are holding. Then, she will ask children about the various objects of their ball colours that they can see in the surrounding.
Intrapersonal: Clay modeling

Introduction: The teacher will show the clay balls of different colour to the children. Then she will ask, if they would like to play with it. She will say my favorite colour is________. What is yours?

Presentation: She will call the children one by one and ask their favorite colour. Then she will give them the ball of that colour (depends on the availability of the colours). The children will make objects with the clay ball.

Recap: The children will discuss with peers, things they have made from clay. The teacher will allow the children to tell any story, poem or any other experiences, after this activity.

Naturalistic: Bouquet

Introduction: The teacher will ask the children to bring flowers of different colours from their houses. She will bring a gelatin paper and leaves to make the bouquet.

Presentation: Teacher will place the gelatin paper on the children's table. Then she will place some leaves on it. Now she will invite each child to place the flower, which she/he has brought, from home. Then, she will gently wrap the flowers with the leaves to make a multi-colour bouquet, using transparent a cello tape to turn it, into a conical shape.

Recap: The teacher will ask the children the colour of the flowers that they have brought. She will also ask the names of the flowers and as to who helped them to bring those flowers?

Evaluation:

Self-evaluation

Peer-evaluation

Teacher's evaluation
LESSON PLAN 7

Concept: Community Helpers
Day:
Date:
Age: 3-4 years
Teacher: Child:: 1:10
Time needed for each activity: 20-25 minutes
Teaching Aids: Flashcards on community helpers, worksheet for matching and colouring, toy equipments like stethoscope, hammer, scissors, chalk, duster, whistle, hosepipe, envelops caps, big drawing sheet, white board, marker, cutouts of community helper, and glue
Aim: Children will learn about community helpers.
Objectives:
Children will be able to identify community helpers.
Children will know roles and responsibilities of community helpers.
Children will be able to differentiate between different community helpers.

Multiple intelligences activities:

Verbal/ Linguistic: Picture talk
Introduction: The teacher will ask the children, if they know any community helper. She will give some examples and explain how they help us in our day-to-day life.
Presentation: The teacher will show the children the flash cards on community helpers. She will ask them if they could identify them by looking at the picture. At the same time, she will also explain about, the help that these people provide.
Recap: Teacher will sing below poem as a recap:

Sung to: “Are you sleeping?”

What is my job?
What is my job?
Can you guess?
Can you guess?

__________

E.g. I help people get well.

__________ (Doctor) ________

E.g. I help people get well.

Who am I?

Who am I?

Other verses: I can fix the water pipes (Plumber). I deliver letters (Postman). I make tasty meals for you (Cook). I keep your pets healthy (Vet). I can teach you new things (Teacher). I can help if you get lost (Traffic Police).

Logical/Mathematical: Matching

Introduction: The teacher will ask the children, “do you know what tools our community helper use to help us? Ok! Give me any example”. The teacher will show them the pictures again and ask them, to identify the tools or equipments used by the community helper.

Presentation: Children, you have to match the following community helper with his/her tools. She will discuss with the children about the tools that these people use. Like, a doctor uses a stethoscope, a barber uses scissors, a teacher with the books, a postal worker with letters and a traffic police with a whistle.

Recap: The teacher will discuss on community helper by showing flash cards on community helper.
Help the community helpers to find their tools:

- Mailman
- Stethoscope
- Teacher
- Envelope
- Nurse
- Scissors
- Librarian
- Books

Lesson plan
Visual/ Spatial: Semantic mapping

Introduction: Teacher can do this activity for any community helper. Here, we will discuss about doctor.

Presentation: The teacher will paste a picture of a doctor in the middle of a white board. She will ask the children to identify it. The teacher will give clues and brainstorm the children, as a help. The children will relate the things, with a doctor like the patient, white coat, stethoscope, medicines, slips, pen, injection, etc. In addition, the teacher will either put pictures or draw a sketch of the things mentioned by children, so that they will be able to recall and relate with the theme.

Recap: Teacher can sing poem on the related community helper

Sung to: “I'm a little teapot”

I'm a helpful doctor, Dressed in white,
I help people feel better, Day and night.
When you get hurt or sick,
Come see me.
I'll get you all fixed up, Just as quick as can be.

**Bodily/Kinesthetic:** Teacher says.....

**Introduction:** Once the children are well acquainted with the topic, the teacher will introduce a game in which they have to act like community helper. Then she will demonstrate what a firefighter does (can take pipe and pretend to extinguish fire), a doctor (can check with stethoscope), a teacher (can teach a rhyme to children) and others do.

**Presentation:** All children will sit in circle. The teacher will place materials related to a community helper in mid of the circle. Now, she will name the community helpers and the children will do some actions related to that person. Each child will be given a chance to perform. This activity can be a good energizer and fun for the children.

**Recap:** The teacher will sing this poem along with the children and do the actions mentioned.

Sung to: "Ten little Indian girls"

Ten little firemen sleeping in a row,

*extend both hands, fingers curled*

Ding dong goes the bell

*pull bell cord with one hand*

And down the pole they go

*close both fists, put one on top of other, slide down pole*

Off on the engine, oh, oh, oh.

*steer engine with hands*

Using the big hose, so, so, so.

When all the fire's out, home so-o slow

*steer engine with hands*

Back to bed, all in a row.

*extend both hands with fingers curled*
Musical/Rhythmic: Rhyme

Introduction: The teacher can sing many rhymes related to the theme. She can discuss about a community helper before singing the rhyme. She can also invite a resource person in the classroom to enrich the experience of the child.

Presentation: The teacher will sing the following poem and the resource person will act accordingly.

Sung to: “Old McDonald”

Old Man Grocer has a store, E I E I O.

And in that store he has some carrots, E I E I O.

With a crunch, crunch here, and a crunch, crunch there.

Here a crunch, there a crunch, everywhere a crunch crunch.

Old Man Grocer has a store, yes siree, he does.

Other verses: Juice...........gulp, gulp;
popcorn........pop,pop;
ic cream........lick, lick

Recap: The teacher can follow this activity with colouring of any grocery item like ice cream, vegetables or fruits etc.

Interpersonal: Collage

Introduction: Children, you all know about the community helpers. You can bring a cutout of any community helper, from the magazines or newspapers.

Presentation: All children bring cutouts from home and the teacher sticks them on the chart sheet. The shape of the chart may vary according to the creativity of the teacher.

Recap: Teacher will discuss each cut out on the chart sheet.

Intrapersonal: Colouring

Introduction: The teacher will inform the children that they are going to colour a community helper (she will show the worksheet). She will also ask them to name it.

Presentation: Now, you have to colour your teacher with your favorite colour.

Recap: The teacher will ask children, how she helps them. Likewise, the children can colour different community helpers, and can describe them after colouring.

Lesson plan
Lesson plan
Naturalistic: Visit to a dentist

Introduction: Children we are going to visit a dentist today. “Have you ever visited one? Ok can you tell me, what a dentist does?” Teacher asks.

Presentation: They will meet a dentist. He/ She will show the different medical equipments to the children and a dummy of teeth. They will get an opportunity to ask questions.

Recap: As a recap, activity the teacher will ask the children to describe their experiences after the visit. She can take pictures from the dentist and paste them on the flannel board in the classroom, so that children can recall their visit, whenever they look at the pictures.

Evaluation:

Self-evaluation

Peer evaluation

Teacher's evaluation
LESSON PLAN 8

Concept: Shapes

Day:

Date:

Age: 3-4 years

Teacher: Child:: 1:10

Time needed for each activity: 20-25 min

Teaching Aids: Five cutouts of different shapes and colour, biscuits or cookies of all five shapes, individual sheets to match and odd out, scissors, small and large pieces of shapes, glue, newspaper, and different colour chalks.

Aim: Children will learn about five basic geometric shapes - square, rectangle, triangle, circle, and a star.

Objectives:

- Children will learn about names of different shapes.
- Children will learn about characteristics of different shapes.
- Children will be able to relate shapes with surrounding objects.

Multiple intelligences activities:

Verbal/ Linguistic: Object Talk

Introduction: The teacher will ask the children, if they know about different types of shapes. She will take a round biscuit and ask the shape. Other things may be a square piece of chocolate, samosa, cornflakes of star shape etc.

Presentation: The teacher will show the cutouts of these shapes and ask children to identify them. She will start her discussion and stick all the shapes on the flannel board. She will also bring biscuits of each shape in classroom.

Recap: As a recap activity, the teacher will pass each kind of biscuit to each child, to show the differences between the five basic shapes.
“First, we will learn about circles. Circles are round. Can anyone give me an example of a circular object in your house? Can you find one in the classroom? Circles do not have straight edges or corners.” Teacher informs. E.g. Good day biscuits/Marie Gold.

“Can any of you think of an object that is square in shape? Squares have four straight sides that are all equal in size. Two sides meet to form corners. There are four corners in a square. We are in a square room right now. There are four corners in this room.” Teacher explains. E.g. 50-50 biscuits of Britania.

Rectangles are almost like squares, but their sides are not of the same size. The teacher can show children Parle-G biscuit.

Triangles have three sides. Two sides of a triangle come together to form corners. Teacher asks, “How many corners does a triangle have?” It is three. “Can anyone think of some triangles we see in everyday life?” E.g., Conical chips (mad angles)

Finally, we will learn about stars. Stars are made up of small triangles. A star has 5 corners, and 10 sides. E.g. Star shaped cookies.
Logical/ Mathematical: Sorting
Introduction: The teacher will ask the children if they like cookies/biscuits. She will distribute different shaped (square, rectangle, circle, triangle and star) cookies/biscuits to each child. Then she will instruct the children, not to eat the cookies/biscuits until they complete the activity.
Presentation: The teacher will instruct the children to sort the different shapes of cookies/biscuits and count the number of cookies/biscuits in each shape. She will ask, “Who has star shape cookies raise your hand?” Then she will ask any child, how many star cookies does he/she has? Similarly, she will do this for the other shapes making sure that every child gets an opportunity to speak.
Recap: Children will eat the cookies in the order of square, rectangle, triangle, circle, and star.

Visual/ Spatial: Matching
Introduction: The teacher asks, “Do you know that shapes have lost their partners, can you help them in finding their partners.”
Presentation: Teacher will show the children a sheet, and ask them to join partners using crayons.
Recap: After children finish activity, the teacher will ask them the shapes of the things around them in the class.
Help the shapes to find their partner:

- Circle
- Triangle
- Square
- Star
- Circle
- Triangle
- Square
- Star

Lesson plan
Bodily/ Kinesthetic: Board Game

Introduction: Today children we will play a game. The teacher will draw fifteen different shapes on the floor with coloured chalk. There will be three rectangles (red), three squares (blue), three triangles (yellow), three stars (white), and three circles (Cream). Be sure that each shape is of different colour is and is drawn neatly and large enough, so that the child can stand on it.

Presentation: Teacher will ask children, whether they are ready to play a game. "First, I will play the music and when I stop it, you have to exclude the shape that I say and stand on the rest of the shapes." Teacher instructs. At a time, only fifteen children can play this game. For example, if teacher says, "rectangle" then, three children will be out of game in the first round. Similarly, all other children will play this game.

Recap: Teacher will ask children to trace the shapes given in individual activity.

Musical/ Rhythmic: Rhyme

Introduction: Children today, we will sing a poem on shapes. She can call the music teacher to play any instrument with poem.

Presentation: Teacher will start the poem. She will take each shape one by one, show children, and sing this poem.

Sung to: "Frere Jacques"

This is a square, this is a square,
How can you tell? How can you tell?
    It has four sides,
    All the same size.
It's a Square, It's a Square.
This is a circle, this is a circle.
How can you tell? How can you tell?
    It goes round and round,
    No end can be found.
It's a circle, It's a circle.
This is a triangle, this is a triangle.
How can you tell? How can you tell?
It only has three sides,
That join to make three points.
It's a Triangle, It's a triangle.
This is a Rectangle, This is a rectangle.
How can you tell? How can you tell?
It has two short sides
And it has two long sides.
It's a rectangle, It's a rectangle.
This is a star, this is a star,
How can you tell? How can you tell?
It has ten sides
That joins to make five points.
It's a star, It's a star.

Recap: Teacher will place shapes in an order, and then ask the children about the shapes, which will complete the pattern. For example:

Star: Rectangle : triangle :: Star : Rectangle :: ? Similarly, she can do it for more patterns.

Interpersonal: Giant Shapes

Introduction: “Children, today we will make a big square, rectangle, triangle, circle, and star. Would you like to see those giant shapes in our classroom? Ok! Then let us make it.” Teacher informs.

Presentation: Teacher will divide the children into five groups. Each group will receive a big cutout of any of the five shapes and few coloured small shapes cut from paper, to stick on it. She will help the children to stick those small shapes in the larger ones.
Recap: Children will sing this song in groups:

Sung to: "London Bridges"
Circle, squares and triangles,
Triangles, triangles,
Circle, squares and triangles,
Star and rectangles.

Intrapersonal: Odd one out
Introduction: "You know children there is one shape, which is not a friend of the others in each row of sheet given to you. Can you find that shape?" Teacher enquires. Then she will distribute the worksheets to the children.
Presentation: "Children you have to figure out the odd among the shapes given and circle the shape which is not similar to the other shapes." Teacher instructs. (On next page)
Recap: Teacher will give the children, newspapers and scissors to cut paper into different shapes.

Naturalistic: Walk around the school
Introduction: "Children, today we are going for a walk around the school. There you will be observing many things, of different shapes. You have to notice and tell me about the shapes you saw during the visit." Teacher explains.
Presentation: Teacher will take the children for a walk and will give clues to them about the shapes they see. For example, tree may be round (circle) from above or conical (triangle), buildings are rectangle, windows may be square etc.
Recap: Teacher will give children the moulds to cut various shapes from rolled dough.

Evaluation:
Self-evaluation
Peer evaluation
Teacher's evaluation
Class: Date: 

Name: Topic: 

Circle the odd shape:
LESSON PLAN 9

Concept: Alphabets

Day:

Date:

Age: 3-4 years

Teacher: Child:: 1: 10

Time needed for each activity: 25 minutes

Teaching Aids: Flash cards of letters Aa, Bb, Cc and Dd, pictures related to letters A, B, C, and D, worksheets for matching letters, circling correct letters, pictures and tracing letters, small tub, liquid detergent, straws, large cutout of letter C and c and sand trays for individual children.

Aim: Children will learn about alphabets A, B, C, and D.

Objectives:

Children will recognize letters Aa, Bb, Cc, and Dd.

Children will explore different things starting with A, B, C, and D.

Children will practice pre-writing skills for alphabets.

Multiple intelligences activities:

Verbal/ Linguistic: Picture talk.

Introduction: “Children, today we will learn something new”, teacher says. She can prepare the flash cards and write the name twice, once starting with capital letter and other with small letter (Axe, axe), so that children can identify, both the letters at the same time.

Presentation: Teacher will show children the flash cards of letters Aa, Both the letters should be introduced together. She will gradually show pictures related to the letter, namely Aeroplane, Apple, Ant and Axe. She will then ask them to identify these pictures. With the introduction of pictures, she will point her finger on the alphabet. The children should pronounce the letter of the picture while doing this activity.

Recap: Teacher will ask the children whose name starts with letter A. She will write it on the black board and pronounce it by emphasizing on the starting letter A. Through this
activity, the children will be keen to learn names and finally, the alphabets.

**Logical/ Mathematical:** Circle the pictures of letter ‘B’

**Introduction:** The teacher will show some pictures out of which two do not start with letter B. Let the children identify the pictures, starting with letter B.

| Balloon | Apple | Book | Star | Cake | Soccer Ball |

**Recap:** Teacher will take a large bowl and mix detergent in it. Then with the help of straw, she will make bubbles and ask the children what it is. They should explain and ask, questions on bubbles. At the same time, she will sing this song:

- **Sung to: Twinkle, Twinkle**
- Bubbles floating all around
  - (pretend to catch bubbles)
- Bubbles fat and bubbles round
  - (make a big circle w/arms)
- Bubbles on my toes and nose
  - (point to toes; point to nose)
- Blow a bubble. ..up it goes!
  - (pretend to blow bubble; point up)
- Bubbles floating all around.
  - (pretend to catch bubbles)
- Bub. . .bles fall. ..ing to...the...ground.
  - (sing slowly & sink to ground)

**Bodily/ Kinesthetic:** Hide and seek of letter ‘C’

**Introduction:** Children, do you like to play hide and seek? Today we will play this game with the letter Cc. This letter wants to hide in our classroom. Will you please help me find the letter ‘Cc.?’
Presentation: Teacher will cut a large capital or lower case letter C, out of a poster board or a construction paper. Either she will hide the cutout somewhere, in the open and slightly camouflaged, or near an object that would begin with the letter C. Let the children look for the letter. She can clap faster or slower depending on how close they are to the letter.

Recap: Children will trace the letter Cc on the worksheet given.

Musical/Rhythmic: Phonic song of letter D

Introduction: “Children do you know which letter is this”, Teacher asks. Then she shows some pictures related to it with the names written below them, starting with letter ‘D.’ She will inform the children that they will sing a song on the letter Dd.

Presentation: Sing this song repeatedly.

Sung to: Jingle Bells

\[
\text{d,d,d,d,d,d} \\
\text{I like to play my drum} \\
\text{d,d,d,d,d,d} \\
\text{I play it with my thumb} \\
\text{(Pretend to hold sticks and beat up} \\
\text{and down on a drum and say d,d,d.)}
\]

Recap: Children will make shape of this letter in the air along with teacher. The teacher will be facing the black board.

Visual/Spatial: Matching

Introduction: The teacher will write A, B, C, and D on the black board. Let the children identify these letters. After that, she will write a, b, c, and d, then she will ask them to identify the letters. If they are unable to identify, she will show the pictures, with the name written below the pictures.

Presentation: “Children you have to match ‘A’ and ‘a’ in the worksheet given”, teacher says. Then she will give them the following worksheet.
**Recap:** Children can you tell what are the things in our class room that starts with the letter B. e.g. black board, ball, blocks, and some pictures that start with letter B.
Interpersonal: Collage of letter D

Introduction: The teacher will ask the children to locate the names of the children starting with the letter D. Like Devansh, Divya, Dev etc. After this activity, she will ask them to bring the pictures of the things, starting with the letter D from their homes.

Presentation: “Children, today we will be sticking the pictures that you brought from your homes, on the cutouts of this big D.” Teacher informs. The children will apply glue and paste pictures on the big D. Later she can display ‘big D’ in the classroom.

Recap: Teacher will write many letters on the black board that includes small and capital D. Now, teacher will start crossing the letters, which are not D. She will ask children to identify which is letter D.

Intra personal: Circle the letter.

Introduction: “Children do you know these four letters A, B, C, and D. We will do the work sheet today.” Teacher informs. She will show the worksheet that has pictures on one side, and letters on the other side.

Presentation: Teacher will distribute worksheet to the children and they have to circle the letter which is the beginning letter of the picture.

Recap: Children will sing the poem of alphabets with teacher.

```
A B C D E F G,
H I J K L M N O P
L M N O P Q R S T
U V W X Y Z
X Y Z, Sugar on the bread,
If you don’t like it better go to bed
Next Monday Morning come to me,
I will teach you A B C.
```
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Naturalistic: Sand Imprinting

Introduction: “Children, can you tell me, what is this?” Teacher asks. Then she will distribute sand trays and allow them to draw anything of their wish.

Presentation: Teacher will invite few children first and show them, how to write letter ‘C’ ‘c’. Similarly, she can show other letters also. However, one letter at a time will help them to understand letters better.

Recap: Teacher will sing the song related with that letter.

Sung to: “Skip to my Lou”
Carrots, castles, candy canes,
Cucumbers and clouds and rain,
Cats and cookies, crayons too.
I think C is cool, Don't You?

Evaluation:
Self evaluation
Peer evaluation
Teacher's evaluation

Lesson plan
LESSON PLAN 10

Concept: Family

Day:

Date:

Age: 3-4 years.

Teachers: Child: 1: 10

Time needed for each activity: 20-25 minutes

Teaching Aids: Photos of mother; father; grandfather; grandmother; brother/sister of children, worksheets for matching, family pictures, small plants, drawing sheets, crayons, pencils and glue, imaginary pictures of family members (cut from any magazine or any other source)

Aim: Children will learn the concept of family.

Objectives:
Children will know that a family is a group of people, who live with them, or share the same premises.

Children will identify people in their family.

Children will be able to explore relationships within the family.

Multiple intelligences activities:

Verbal/ Linguistic: Rhyme

Introduction: “Children, we all have family. Can you tell me, who is there in your family?” Teacher asks. The children will try to answer the question. The teacher will help them by providing clues like, father, mother, brother, sister, baby, grandfather and grandmother.

Presentation: “Children, today we will sing a poem on the family. Would you like to sing along with me?” Teacher enquires. The teacher can set any tune to the poem:

With ______ in the family

Happy, happy home
Happy, happy home
Happy, happy home
With _____ in the family
    Happy, happy home
    Happy, Happy home!

The ____ is a name -- or you can use papa, mummy, sister, brother, baby, etc...

**Recap:** Teacher will ask children whether they have liked this poem. As a recap activity, she will paint her thumbs as papa, mummy, sister and brother. She will ask the children, to identify them.

**Logical/Mathematical:** Who is eldest of all?

**Introduction:** “Children now you know about the family can you tell me who the eldest member in your family is?” Teacher asks?

**Presentation:** Teacher will have cutouts of all the seven family members. She will stick them on the flannel board randomly. She will invite individual child to choose the eldest person in their family (that may be grandfather, grandmother, father or mother).

**Recap:** Teacher will give the children worksheets in which they have to match, father with mother, grandfather with grandmother, and sister/brother with sister/brother.

**Bodily/Kinesthetic:** Thumb acting

**Introduction:** “Children, we will play a game to day. We will draw family members on our finger and act one play.” Teacher informs.

**Presentation:** Teacher will take five different colour markers and draw mummy, papa, brother, sister and baby on her and children’s fingers. Now she will start singing the following poem:

This is my mother, kind and dear.
  (Make a fist and point to your thumb)
This is the father sitting near.
  (Shown each finger in turn)
This is the brother strong and tall.
This is the sister, who plays with her ball.
  This is the baby, littlest of all.
See my whole family large and small
(Wiggle all the fingers)

Recap: Teacher will divide the children in groups and they will role-play the family concept.

Visual/ Spatial: Family tree.

Introduction: Teacher will inform the children that they will be making a family tree. She will ask them, if they know about it. She will display a family tree of her own. She will allow the children to ask questions about the family tree.

Presentation: Teacher will ask the children to take out the pictures of their family members, from their folders. Now the teacher will provide children a family tree sheet. She will ask the children to stick pictures in the right places taking her assistance. For example:

Recap: Teacher will discuss with children about their family tree. In addition, allow them to take this activity home.
Musical/ Rhythmic: Rhyme

Introduction: Would you like to sing along with me? Teacher asks.

Presentation: Teacher will start singing the poem

Sung to: "Where is Thumbkin?"

Papa is special, daddy is special,
Yes he is, yes he is,
Papa is special, daddy is special,
Yes he is, yes he is.

Replace Papa with other family members.

Recap: The teacher will ask the children, why their parents are special. She will ask them to explain, why their other family members are also, special.

Interpersonal: Family Mural (Wall painting)

Introduction: The teacher will show children that they are making a mural. She will stick any light colour drawing sheet on the wall to make a mural. She will draw simple sketches of house, which includes garden, table chair, sofa, kitchen equipments, etc. at many places on mural to give a look of family atmosphere. Now she will ask the children, to take a picture of any family member from basket (cut from the magazine).

Presentation: Children, with the help of teachers will stick pictures on the drawing sheet to make a mural. They can even draw some drawings on the blank space just to make it more attractive. Papa is sitting on chair or he is gardening, mummy is cooking food, sister is playing with toys, grandfather is reading a newspaper etc. depending on the imagination of teacher and children.

Recap: Teacher can repeat any of the poems from above as a recap activity.

Intra personal: Draw a family

Introduction: Even though children cannot draw precisely, however, they love to draw their family. The teacher will ask them to draw their family in their drawing books.

Presentation: Teacher will give children, crayons to draw the picture of their family members of their wish.
Recap: Teacher will ask children to scribble below their drawing. They will be labeling their drawings. Later on the teacher can ask the children as to whom do they like most in the family and why?

Naturalistic: Grandparents’ day

Introduction: “Children, today we shall invite your grandparents in the school. Would you like to make them happy?” Teacher asks

Presentation: Children will sing poems, and speak about their families especially about their grandparents. Grandparents will also be included for giving messages to children or for any performance, like sing a song or bhajan, mimic or any other activity for children. At the end, groups of children with their grandparents, will be planting trees to value nature, and bonding with each other.

Recap: Children will be ending this session by singing this poem practiced earlier with teacher:

Let's clap our hands for Grandma,
   for Grandma, for Grandma,
Let's clap our hands for grandma,
   Let's clap them this way.
   Clap this way and that way,
   Clap this way and that way,
Let's clap our hands for Grandma
   Let's clap them this way.

Children will sing this poem for grandpa also.

Use these other actions also:
   Let's stamp our feet, Let's nod our heads, etc.

Evaluation:

Self evaluation
Peer evaluation
Teacher's evaluation

Lesson plan
APPENDIX F

INTERVENTION PROGRAMME
OBJECTIVES OF WORKSHOP

You should be able to:
- Differentiate between traditional view of intelligence and multiple intelligences theory.
- Identify the basis of MI theory
- Define multiple intelligences
- Explain multiple intelligences
- Understand basic concept of MI theory

ACTIVITY 1

Its not how smart we are, its how we are smart.

WHAT DO YOU THINK, WHO IS INTELLIGENT?

- Vishwanathan Anand
- Lata Mangeshkar
- Dhanraj Pillay
- M. F. Hussain
- Amartya Sen
HOW THESE METHODS DIFFER IN CLASSROOM

1) Kids with strong academic intelligence are smart not others
2) Teachers create a hierarchy of intellect
3) The classroom is curriculum centered
4) Teachers help students acquire information and facts
5) Focus is on 3 R’s
6) Teachers work from area
7) Teachers assess students by ‘objective’ measures
8) Teachers work in isolation

1) Every kid is smart in different ways
2) Teachers use all students intelligences to help them learn
3) Class room is child centered
4) Teachers help students create meaning in a constructive way
5) Who you are is more important than what you know
6) Teachers create curriculum
7) Teachers create assessment tools, Portfolio, projects, exhibitions which incorporate MI
8) Teachers work with colleagues in using MI intelligence frameworks

DEFINITION OF INTELLIGENCE

- Human intelligence is traditionally defined as the singular, collective, uniform cognitive capacity to act and react in ever changing world
- Intelligence is the bion-psychological potential to process information that can be activated in cultural setting to solve problems, or to create products, that are of value in culture.
- Frames of mind
- Howard Gardner

Can You differentiates between Traditional view of intelligence and Multiple intelligences?

- Intelligence can be measured by short answer test
- Intelligence can be assessed not measured
- People are born with fixed amount of intelligence and intelligence level does not change over life time
- Intelligence consists of ability in logic and language
- Teaching material can be taught in same fashion to every children.
- Teaching material can be taught through multiple entry

MI THEORY BASED ON MULTIPLE PERSPECTIVES

- MI theory based on the research findings from Neurology, Biology, Cognitive and Developmental Psychology, Anthropology and the Arts and Humanities.

- There is both Biological and Cultural basis for the Multiple Intelligence

Biological Basis for Multiple Intelligences

- The Brain is a massive net containing trillions of cells called neurons.
- The neurons are connected to each other by synapses.
- Electric impulses can pass from one neuron to another if a synapse connects them.
- Learning involves destruction, creation or strengthening of synapses between these neurons.
- Learning results from synaptic connections in areas of brain
- Intelligences are located in different areas of the brain
MI THEORY RESTS ON THESE NOTEWORTHY POINTS
- People possess all intelligences but in varying degrees of strength, skill and limitation.
- No one kind of intelligences is better than another kind of intelligences
- Each intelligence has its own sphere of expertise
- Intelligences are independent of each other
- Intelligences usually work together in complex ways.
- Each intelligence involves sub abilities or different manifestations
- Intelligences are not goal to the lesson but the means to learning goals

INTELLIGENCE IS CONSIDERED IF IT MEETS FOLLOWING CRITERIA......
- Potential isolation by brain damage
- An evolutionary history and evolutionary plausibility
- An identifiable core operation or set of operations
- Susceptibility to encoding in a symbol system
- A distinctive developmental history, along with a definable set of expert "end state" performances
- The existence of idiots, savants, prodigies, and other exceptional individuals
- Support from psychometric findings
- Support from experimental psychological tasks

ACTIVITY 2

EXISTENTIAL INTELLIGENCE
- Sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get here.
VERBAL/LINGUISTIC INTELLIGENCE

- Think in words and to use language to express and appreciate complex meanings.

CHARACTERISTICS

- Listens and responds to the sound, rhythm, and variety of spoken words.
- Imitates sounds, language, reading, and writing of others.
- Learns through listening, reading, and writing of others.
- Comprehends, paraphrases, interprets, and remembers what has been said.
- Ability to learn new languages.
- Original works of writing or oral communication.

CHARACTERISTICS of CHILDREN and CAREERS

- Tell jokes, stories, puns.
- Use an expanded vocabulary.
- Play word games and reading.
- Use words to create images.
- Communicate thoughts well.
- Writes better than age.
- Poets.
- Authors.
- Journalists.
- Speakers.
- Newscasters.
- Politician.
- Teacher.
- Lawyer.

LOGICAL/MATHEMATICAL INTELLIGENCE

- Associated with scientific and mathematical operations.

CHARACTERISTICS

- Skill at logical problem solving like inductive and deductive reasoning.
- Classifying and categorizing information.
- Use abstract symbols to represent concepts.
- Perceives patterns and relationship.
- Uses diverse mathematical skills.
- Able to solve complex operations such as calculus, physics, computer programming, and research.
- Poses and tests hypotheses for experiments.

CHARACTERISTICS of CHILDREN and CAREERS

- Work with numbers.
- Figure things out.
- Analyze situations.
- Exhibit precision in problem solving.
- Work in situations with clarity.
- See how things work.
- Always questioning.
- Enjoy experimenting.
- Scientists.
- Accountants.
- Engineers.
- Computer programmers.
- Researchers.
- Mathematicians.
**VISUAL/SPATIAL INTELLIGENCE**

- Ability to perceive in visuals

**CHARACTERISTICS**

- Learns by seeing and observing
- Navigates self and objects effectively through space
- Perceives and produces mental imagery, thinks in pictures, and visualize in detail
- Decodes graphs, charts, maps and diagrams
- Reproduce objects in visible forms like painting, drawing
- Easily construct three-dimensional products such as origami objects, mock bridges
- Perceives both obvious and subtle information

**CHARACTERISTICS of CHILDREN and CAREERS**

- Doodle, paint or draw
- Create three-dimensional representations
- Look at and create maps and diagrams
- Take things apart and put them together
- Good sense of directions
- Painters
- Architects
- Sculptures
- Pilots
- Sailors
- Interior designers
- Mechanic
- Surgeons

**BODILY/KINESTHETIC INTELLIGENCE**

- Able to manipulate objects and fine tune physical skills

**CHARACTERISTICS of CHILDREN and CAREERS**

- Explores the environment and objects through touch and movement
- Coordination and sense of timings
- Learns best by participation
- Demonstrates balance, grace, dexterity and precision in physical tasks
- Show dexterity in working by means of small or gross motor movements
- Invents new approaches to physical skills
- Enjoy concrete learning experience like field trips, role play, assembling objects
- Play sports and physically active
- Engage in risk taking with their bodies
- Dance, art and mime
- Engage in crafts and play with mechanical objects
- Goal directed
- Use body to express emotions
- Athletes
- Dancers
- Surgeons
- Artisans
- Firefighters
- Actors
- Physical education teachers
LISTENS AND RESPOND WITH INTERESTS TO A VARIETY OF SOUNDS AND ORGANIZES SUCH SOUNDS INTO MEANINGFUL PATTERN

DEVELOPS THE ABILITY TO SING OR PLAY AN INSTRUMENT ALONE OR WITH OTHERS

CAN EVALUATE AND EXPLORE THE CONTENT AND MEANING OF MUSIC

RECOGNIZES AND DISCUSSES DIFFERENT MUSICAL STYLES, GENRES, AND CULTURAL VARIATIONS

USES VOCABULARY AND NOTATIONS OF MUSIC

CAN COMPLETE A MUSICAL STATEMENT IN A WAY THAT MAKES SENSE

CAN CREATE ORIGINAL COMPOSITIONS OR MUSICAL INSTRUMENTS

RESPONS TO MUSIC KINESTHETICALLY

LISTEN TO AND PLAY MUSIC

ASSOCIATE FEELINGS WITH MUSIC AND RHYTHM

SING AND HUM

CREATE AND REPLICATE TUNES

RECOGNIZES VARIOUS ENVIRONMENTAL SOUNDS

CHARACTERISTICS OF CHILDREN AND CAREERS

- Composers
- Conductors
- Musicians
- Critics
- Instrument makers
- Radio Jockey
- Disco Jockey

FORMS AND MAINTAINS SOCIAL RELATIONSHIPS

RECOGNIZES AND USES A VARIETY OF WAYS TO RELATE WITH OTHERS

INFLUENCES THE OPINIONS OR ACTIONS OF OTHERS

COMMUNICATE EFFECTIVELY BOTH IN VERBAL AND NON VERBAL WAYS

ADAPTS BEHAVIOR ACCORDING TO OTHERS

PERCEIVES THE FEELINGS, THOUGHTS, MOTIVATIONS, BEHAVIORS, AND LIFESTYLE OF OTHERS

PARTICIPATE IN COLLABORATIVE EFFORTS AND ASSUMES APPROPRIATE ROLES

INTERPERSONAL INTELLIGENCE

UNDERSTAND AND INTERACT EFFECTIVELY WITH OTHERS
**CHARACTERISTICS of CHILDREN and CAREERS**
- Enjoy many friends
- Lead, share, meditate
- Build consensus
- Help others with their problems
- An effective team member
- Politicians
- Social workers
- Counselor
- Sales person
- Teacher
- Lawyer

**INTRAPERSONAL INTELLIGENCE**

**CHARACTERISTICS**
- Aware of own emotions
- Develop an accurate model of self
- Establishes and lives by ethical value system
- Works independently
- Motivated to identify and pursue goals
- Finds approaches and outlets to express feelings and thoughts
- Strives for self actualization
- Empower others

**CHARACTERISTICS of CHILDREN and CAREERS**
- Reflect, control own feelings and moods
- Pursue personal interests
- Set individual agenda
- Learn through observing and listening
- Use metacognitive skills
- Philosophers
- Psychologists
- Theologicians
- Theorists
- Researchers
- Saints and priests

**NATURALIST INTELLIGENCE**
- Observes patterns in nature, identifying and classifying objects and understanding natural and human made systems

**CHARACTERISTICS**
- Explores human and natural environments with enthusiasm
- Observe, identify, interact with, or care for objects plants and animals
- Classifies objects according to their characteristics
- Always curious about, "how things work" in nature
- Recognizes patterns and relationships among members of a species or classes of objects
- Keen to learn taxonomies of plants and animals
- Develops new taxonomies, theories of life cycle.
CHARACTERISTICS OF CHILDREN and CAREERS

- Spend time outdoor
- Collection of plants, rocks and other things in nature
- Notice relationship in nature
- Classify flora and fauna
- Keen observer of the environment
- Botanists
- Hunters
- Farmers
- Ecologists
- Landscapers
- Chef

CONCEPTS IN MI THEORY

- ENTRY POINTS: The activities in which students participate. Through entry points, strengths can be addressed and weaknesses can be challenged.
- EXIT POINTS: How students learning is assessed (Demonstration of learning) also known as performances of understanding.
- ANALOGIES: Bridging current understanding and new material to be learned.
- MI REFLECTIONS: Identifying students’ learning preferences and strengths.
- MULTIPLE REPRESENTATION: Core ideas presented in different ways.
- PROJECT BASED CURRICULUM: Opportunities to simulate and solve real problems.
- LEARNING CENTER: A portion in the school is devoted to develop and work on themes.

ENTRY POINTS/DOORS INTO THE SAME ROOM

- Narrative – introduce through story-telling
- Numerical – engage through computation
- Logical – deduction to learn new concepts
- Existential/Foundational – ask questions
- Aesthetic – engage senses through artworks
- Experiential – hands-on, manipulation
- Interpersonal – cooperative learning

EXIT POINTS/PERFORMANCES OF UNDERSTANDING

- Provide opportunities to assess essential questions, skills and concepts.
- Allow students to choose according to interests and talents.
- Develop rubric to assess content.
- Develop authentic tasks by approaching multi-disciplinary perspective.

For example: How would a writer represent understanding of concept that may be poetry, stories, speeches, scripts, song lyrics, editorials, etc.

MULTIPLE REPRESENTATIONS

- Family of representations
- Activate different intelligences
- Present new concepts in multiple ways
- Content presentation activates more than one intelligence
UNDERSTANDING PATHWAYS

- Applying MI Theory to create strategies
- Multiple Intelligence Reflections
- Bridging – using MI strengths to assist with difficult areas (Analogies)
- Entry/Exit Points – entry into topic, exit by performing understanding
- Project-based curriculum – MI theory framework with authentic problems

CONCLUSION

- MI theory has eight types of intelligence:
  - Word Smart
  - Number Smart
  - Picture Smart
  - People Smart
  - Self Smart
  - Body Smart
  - Music Smart
  - Nature Smart

- Existential remains an intelligence candidate awaiting more convincing neural evidence.
- There are biological and cultural basis for these intelligences
- All intelligences are independent but work in consort
- Understanding of pathways help students to open the door for them to reshape, extrapolate from, apply, and build on what they already know.
WORKSHOP 2

Explore and Apply Multiple Intelligences in the Classroom

OBJECTIVES
- To review work done in previous workshop
- To encourage use of MI theory in classroom
- To define active learning
- To identify different classroom activities that may support a particular intelligence
- To discuss the strategies which help to apply multiple intelligences in the classroom
- To assess student's capabilities using MI checklist.
- To apply MI in classroom
  - To plan lesson objectives using multiple intelligences wheel
  - To integrate activities, strategies and MI wheel for planning a lesson

Verbal Linguist
- Exploring new vocabulary
- Learning terms and expressions from other languages
- Encouraging opportunities for public speaking
- Incorporating drama into learning
- Keeping daily journals of children
- Nurturing oral storytelling
- Utilizing quality children's literature in the classroom

Logical Mathematical
- Creating intrinsic and extrinsic order in classroom
- Presenting criteria at the beginning of an activity to provide structure
- Offering open-ended problem solving tasks
- Including convergent thinking activities in instruction
- Promoting experiments which test student hypotheses
- Encouraging classroom debate
- Incorporating puzzles into learning centers
- Setting short term, achievable goals for the class
- Allowing students to participate in building assessment rubrics
Visual Spatial

- Providing a visually stimulating environment
- Sketching plans before beginning work
- Brainstorming ideas
- Semantic mapping
- Guided imagery exercises
- Working with manipulative
- Drawing abstract concepts
- Providing visual assessment performance tasks

Activity

Have you ever...

Musical

- Rewrite song lyrics to teach a concept
- Moving to rhythm
- Working with pattern blocks
- Finding patterns in sequences of numbers
- Encourage to add music in plays
- Exposure to different environmental sounds
- Create musical Mnemonics

Interpersonal

- Allowing interaction among students during learning tasks
- Encouraging activities where students work in groups
- Providing opportunities for students to select their own groups
- Forming cooperative groups wherein each member has an assigned role
- Planning activities where students form teams to be successful
- Allowing healthy competition that promotes higher level achievement
- Incorporating structured dramatic activities in which students can role play
- Utilizing resource people to give energy to your classroom

Intrapersonal

- Allow students to work at their own pace
- Using analogies in making comparisons
- Allow students to work alone in quite areas of classroom
- Providing opportunities to express students feelings on a topic
- Allowing opportunities for student reflection on learning
- Help students set and monitor personal goals
- Including student self-assessment in classroom assessment strategies

Bodily Kinesthetic
Naturalist

- Can use outdoor as classroom
- Provide the opportunity in making connections to the natural world
- Building portfolios of student work
- Conduct hands-on experiments
- Provide brainstorming categories
- Provide sorting and attribute grouping tasks
- Create a nature area on the playground

What is active learning?

- Learning takes place when students become actively involved in the learning process.
- Students are involved in more than listening. Less emphasis is placed on transmitting information and more on developing students' skills. Students are involved in higher-order thinking (analysis, synthesis, evaluation), students are engaged in activities (e.g., reading, discussing, writing), and greater emphasis is placed on students' exploration of their own attitudes and values. (Bonwell and Eison, 1991)

Group Activity

- Distribution of activity sheet

Parts of Body

- V/L: Picture talk from picture book
- L/M: Count your fingers, use of different body parts
- V/S: Puzzles related to body parts
- M/R: Rhymes, different sounds of body parts with fingers, palms, feet etc.
- B/K: Body tracing
- Intra: Watching mirror for self reflection
- Inter: Collage painting with palms of different students
- Nat: Keen observation of differences among children

Opposites

- V/L: Group discussion, picture talk
- L/M: Sequencing blocks from large to small and vice-versa
- V/S: Match the pictures of opposite in nature
- M/R: Rhymes, different sounds of opposite nature
- B/K: Do the action
- Intra: Moods of different children in the class
- Inter: In-out game with male-female
- Nat: Nature walk and observing differences/ Draw sun and moon on a sheet.
Trees

V/L: Narrate a story/video using this concept
L/M: Germination of seed
V/S: Collage of tree with bark, leaves, semantic mapping
M/R: Rhymes, sound made by leaves
B/K: Dramatization to save trees
Intra: Make own family tree
Inter: Group discussion on trees or story heard
Nat: Nature walk and observe different kinds of trees

Introduction of Letters

V/L: Book making,
L/M: Matching pictures with letters
V/S: Find the picture in a maze for letter
M/R: Rhymes
B/K: Making letters with blocks, clay modeling
Intra: Learn letters in their name
Inter: Make letters by joining hands on traced letter on floor
Nat: Sand imprinting

MI strategies

MI theory opens the door to a wide variety of teaching strategies that can easily be implemented in the classroom.
• Add an interdisciplinary element to the unit
• Collaborate with other teachers of your school
• Let students have variety of presentation options for a concept
• Apply MI thinking to group projects
• Encourage peer tutoring
• Involve the community, family, and guest speakers

Assess Children with MI Checklist

MI Theory can help to find the

SKILL IN ME!
The analytic domain consists of the logical, musical and naturalist intelligences. These are the intelligences that promote analysis of knowledge that is presented to the learner. These three intelligences are analytic because:
- Even though they can have a social or introspective component to them, they most fundamentally promote the process of analyzing and incorporating data into existing schema.
- The analytical intelligences are by nature heuristic processes.

The interactive domain consists of the verbal, interpersonal, and kinesthetic intelligences. These are the intelligences that learners typically employ to express themselves and explore their environment. These three intelligences are interactive because:
- Even though they can be stimulated through passive activity, they typically involve and encourage interaction to achieve understanding. Even if a student completes a task individually, s/he must consider others through the way s/he writes, creates, constructs and makes conclusions.
- The interactive intelligences are by nature social processes.

The introspective domain consists of the existential, intrapersonal and visual intelligences. These are the intelligences that have a distinctly affective component to them. These three intelligences are introspective because:
- They require a looking inward by the learner, an emotive connection to their own experiences and beliefs in order to make sense of new learning.
- The introspective intelligences are by nature affective processes.

The Wheel of MI Domains serves as an organizer for understanding the fluid relationship of the intelligences. These three domains are meant to align the intelligences with familiar learner attributes teachers routinely observe in the classroom. When planning for instruction, teachers can plan lessons and units which effectively address all of the intelligences in the classroom. Here are two strategies for utilizing the wheel:
- To balance intelligences
- To target intelligences

One intelligence is selected from each domain in order to provide for a well-balanced accommodation of the intelligences.

Objective: Given a chant, the learner will recite the chant with proper meter and interpretation of its content.

Intelligences:
- Verbal - recite the chant
- Musical - experience the chant’s meter
- Existential - interpret the sentiment expressed in the chant

To target intelligences

Target all the intelligences of a specific domain to provide for experience that strengthen that particular domain.

Objective: Given a concept for dramatization, learner explores the concept and expresses it in socially approved manner.

Intelligences:
- Verbal - Presenting the concept verbally
- Interpersonal - Expression of self in context with other person
- Kinesthetic - Using gestures to deliver message accurately.
Lesson plans are the blueprints of teaching. Through MI existing lesson can be transformed into multi model learning opportunities for children so that every child can be enriched. How might I translate this information/topic/concept/skill into variety of different yet appropriate intelligences?

How to make lesson plan

- Unit of study
- Date, Day, Age, Class
- Name of activity
- Aim
- Objectives
- Teacher: child
- Time needed
- Materials: Teaching aid required
- Introduction
- Presentation
- Recap
- Evaluation
- Self evaluation
- Teacher's evaluation
- Supervisor's evaluation

You can encourage use of MI through many activities. Active learning helps children to discover, process, and apply information than to simply listen. Use of different activities and strategies in the classroom are effective methods to incorporate MI in classroom. Assessing children will help to plan lesson more effectively. Referring to the wheel of domains when planning for instruction, teachers can plan lessons and units which effectively address all of the intelligences in the classroom.

Discussion on assessment sheets

- Lesson plans are the blueprints of teaching
- Through MI existing lesson can be transformed into multi model learning opportunities for children so that every child can be enriched
- How might I translate this information/topic/concept/skill into variety of different yet appropriate intelligences?

Make a lesson plan

- Seasons
- Animals
Assessment with multiple intelligence.

Objectives
- To define assessment
- To discuss features & principles of assessment
- To differentiate between old & new assessment paradigm.
- To explore sources of assessment
- To use the Tri-Assessment Chart of Multiple Intelligences for assessment of children. It includes
  - Traditional
  - Portfolio
  - Performance

"Assessment is the process of collecting, synthesizing, and interpreting information to aid classroom decision-making. It includes information gathered about pupils, instruction, and classroom climate."

Questions & Answers

What do you think assessment is?
I define assessment as the obtaining of information about the skills and potentials of individuals, with the dual goals of providing useful feedback to the individuals and useful data to the surrounding community.

According to Gardner, features of assessment are:

- Emphasize on assessment rather than testing
- Assessment is simple, natural and occurring on a reliable schedule
- Ecological validity: Assessing in actual working conditions
- Instruments that are "intelligence-fair"
- Use of multiple measures
- Sensitivity to individual differences, developmental levels and forms of expertise
- Application of assessment for the students benefit

Differences between old and new assessment paradigm:

- All students learn in the same way therefore instruction and testing can be standardized.
- The most accurate indicator of student knowledge and learning is the norm-based, standardized assessment instrument.
- Students learn in the way therefore instruction and testing must be individualized and varied.
- Performance-based, direct assessment involving a variety of testing instruments are accurate indicators.

Contd..

- Paper & pencil tests are the only valid way to assess academic progress.
- Assessment is usually done separately from the curriculum and methods of instruction.
- True & objective picture of students knowledge & learning is from outside testing instrument.
- Each student is unique therefore instruction and testing must be individualized and varied.
- Performance-based, direct assessment involving a variety of testing instruments are accurate indicators.

Contd..

- The process of learning is focused on the content of the curriculum, particularly textbooks-based learning and instruction which can be measured objectively.
- The student is passive learner.
- Monomodal testing practices (verbal-linguistic & logical mathematical, i.e. 3Rs) are the only viable means for testing.
- Multimodal testing practices based on MI are viable means for testing students.
What are the sources for assessment of MI among young children?

Observation: This is the single best tool for assessing students' multiple intelligences.
- Good observational indicator of students' proclivities is how they spend their free time in school.
- Keeping a notebook, diary, or journal handy in a desk or on a shelf for recording observations.
- To organize observations, checklists can be used which in conjunction with other sources help to assess children.

Contd...

Tri-Assessment Model

- Proposed by Robin J. Fogarty.
- Includes Traditional, Portfolio & Performance assessment.
- Also integrates multiple intelligences with this model
- Emphasize on tri-assessors (Teacher, self & peers)

Balanced Assessment shows you how to create authentic, dynamic, fluid and formative assessments. The tri-assessment model promotes a combination of traditional, portfolio and performance methods to ensure an accurate assessment of growth and development in every student.
Traditional Assessment

- Gathering information on student's learning through techniques such as:
  - Multiple choice
  - Fill in the blanks
  - Matching questions
  - True or false
  - Essays
- Useful for the students who think critically and in higher order.

Portfolio Assessment

- A purposeful collection of student work that tells the story of the student's efforts, progress, or achievement in (a) given area(s). This collection must include:
  - Student participation in selection of portfolio content,
  - The guidelines for selection, the criteria for judging merit,
  - Evidence of student self-reflection.

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How to create portfolios!
• To show growth: Such as Growth Portfolios. It helps to
  - Develop process of skills like self evaluation and goal setting.
  - Identify strengths and weaknesses
  - Track the development of one more products/performances

• To showcase current abilities: Such as Showcase Portfolios. It helps to
  - Showcase end of year accomplishments
  - Prepare a sample of best work
  - Showcase student perceptions of best work
  - Communicate a student's current aptitudes to future teachers

• To evaluate cumulative achievement: Such as Evaluation Portfolios. It helps to
  - Document achievement for grading purposes
  - Document progress towards standards
  - Place students appropriately

Which audience...

- Students
- Teachers
- Parents
- Community
- Any Expert

Content depends upon the purpose of the portfolio.
PROCESS OF PORTFOLIO

4. PROCESS

- Decide on Expectations to be demonstrated
- Work Completed: Samples Collected
- Reflect on Learning
- Portfolio Shared: Others Respond
- Set Criteria for Success
- Establish Rubric
- Set Learning Goals
- Reflect Contents Of Portfolio
- Student Directed/ Teacher Facilitated
- Student Directed/ Teacher Directed
- Teacher Directed/ Student Facilitated
- Teacher Directed/ Student Input

Management decisions based on following questions...

- Should the portfolio building process wait until the end or should it occur as you go?
- Will the portfolios be composed of paper or stored electronically (or both)?
- Where will the work samples and reflections be kept?
- Who will have access to it, and when?
- How will portfolio progress be tracked?
- What will the final product look like?
- What if students join your class in the middle of the process?

How to make Evaluation...

- Evaluation refers to act of making judgment about something
- What to grade: It is from nothing to everything including samples of work, reflection, organization & presentation.
- How to grade: By setting rubrics for evaluation.

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Performance Assessment

It is a measure of assessment based on authentic tasks such as activities, exercises, or problems that require students to show what they can do.

- Student need not to select answer from the ready made list.
- A form of alternative or authentic assessment
- Involves H.O.T.S (e.g., cause and effect analysis, deductive or inductive reasoning, experimentation, and problem solving)
- Used for learning as well as assessment

What are the learning outcomes...

Are not clear-cut right or wrong answers rather, there are degrees to which a person is successful or unsuccessful.

How to clearly define purpose by the teachers.....

- What concept, skill, or knowledge am I trying to assess?
- What should my students know?
- At what level should my students be performing?
- What type of knowledge is being assessed: reasoning, memory, or process

Define task...

- What is the nature of the task to be done?
- What does it represent?
- How does it relate to the curriculum?
- What types of performances are desired and expected?
- How extensive is it in scope?
- How authentic is it?

Same as Portfolio assessment
Performing important aspects of performance:
- Number of performance criteria so they can all be observed
- Involves a group of teachers
- Express in form of observable behavior
- Avoid ambiguous words
- Arrangement of criteria in which they are likely to be observed.

How to develop criteria:
1. Identify task to be assessed and imagine as if you are performing
2. List important aspects of performance
3. Limit number of performance criteria so all can be observed
4. Involve group of teachers
5. Express in form of observable behavior
6. Avoid ambiguous words
7. Arrange criteria in which they are likely to be observed.

How to assess:
- Open-ended or extended response exercises: These are questions or prompts to explore a topic.
- Extended tasks: These are assignments that require sustained attention in a single work area. For example, revising a poem, hands on learning on the same concept.
- Portfolios: These are selected collections of a variety of performance-based work.

Conclusion:
- Assessment is an ongoing process.
- Assessment is obtaining information and providing useful feedback to individual and community.
- Observation can be done through observation, collecting documents and school records, talking with parents and setting up special activities.
- Tri assessment model is best for the teachers who are moving toward more authentic assessment. It includes traditional, portfolio, and performance assessment.

Assumptions of Performance Assessment:
- Knowledge is constructed
- The task is worthwhile
- Better assessments improve teaching
- Meeting criteria improves learning
TEACHERS PARTICIPATING IN MI WORKSHOPS
CLASSROOM OBSERVATIONS OF CHILDREN