Description: Exploring Science in Early Childhood

Subject | Cat-Nbr | Class | Term | Mode | Units | Campus
---|---|---|---|---|---|---
ECE | 2012 | 18175 | 3, 2002 | EXT | 1.00 | TWomba

Academic Group: FOEDU
Academic Org: FOE004
HECS Band: 1
ASCED Code: 070101

STAFFING
Examiner: Lyn Bower
Moderator: Noel Geoghegan

RATIONALE
Fleer and Hardy (1996) suggest children's early experiences with science related concepts and materials are vital for their development of values and attitudes about science and technology. They are receptive to learning experiences which help them to develop scientific ideas through 'hands on' learning enabling them to discover science and technology as fun and enjoyment.

SYNOPSIS
This course will introduce different teaching/learning approaches to science such as discovery learning, cultural transmission learning, interactive learning and socially constructed learning by taking cognizance of the individual child's learning style and matching these with teaching styles.

OBJECTIVES
On successful completion of this unit students will be able to:

- have knowledge of a number of approaches to teaching science;
- understand the value of hands-on experiences for children in science activities.
- know how to effectively respond to children's questions.
- select, organise and present suitable materials for science activities for young children.
- be adept a essential questioning techniques to further extend children's knowledge of science and technology.
- accept that both the natural as well as the physical environment should be studied.
- demonstrate some knowledge of science content and an ability to effectively access such knowledge.
- develop an enthusiastic scientific attitude.

## TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Learning and Teaching Styles (overview)</td>
<td>5.00</td>
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<tr>
<td>2. Responding to young children's questions</td>
<td>10.00</td>
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<tr>
<td>3. Overview of effective questioning techniques</td>
<td>5.00</td>
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<td>4. Introduction to approaches to teaching science in ECE</td>
<td>20.00</td>
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<td>5. Discovery Learning, Process Skills Approach</td>
<td>20.00</td>
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<td>6. Interactive Learning, Transmission Approach</td>
<td>10.00</td>
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<tr>
<td>7. Environmental Education in Early Childhood</td>
<td>15.00</td>
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<tr>
<td>8. Appropriate Resources</td>
<td>5.00</td>
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<tr>
<td>9. Setting up a science museum in the classroom</td>
<td>10.00</td>
</tr>
</tbody>
</table>

## REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

1990, *Simply Science: A Complete Science Program (Level 1-7)*, RIC Publications, Greenwood WA.

*Please note these are only a few suggestions. Please check the library and web-based resources,*


Jakab, C 1993, Exploring together: A science course for primary schools (Books 1-3), Phoenix Educational,


Rockwell, R., Sherwood, E. & Williams, R 1983, Hug a Tree: And Other Things to do Outdoors with Young Children, Gryphon House, Mt Rainer MD.

Rockwell, R., Williams, R. & Sherwood, E 1992, Everybody has a Body: Science from Head to toe, Gryphon House, Mt Rainer.


Williams, R., Rockwell, R. & Sherwood, E 1987, Mudpies to Magnets: A Preschool Science Curriculum, Gryphon House, Mt Rainer.


**ASSESSMENT DETAILS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks Out of</th>
<th>Wtg(%)</th>
<th>Required</th>
<th>Due Date</th>
</tr>
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<tbody>
<tr>
<td>ASSIGNMENT</td>
<td>100.00</td>
<td>50.00</td>
<td>Y</td>
<td>21 Mar 2002</td>
</tr>
<tr>
<td>ASSIGNMENT 1</td>
<td>100.00</td>
<td>50.00</td>
<td>Y</td>
<td>06 Dec 2002</td>
</tr>
</tbody>
</table>

**OTHER REQUIREMENTS**

1. When there is more than one marker for a single item of assessment, the distribution patterns and means for the different markers will be compared and marks adjusted if necessary.

2. Marking criteria are provided in unit material as mark sheets/guides or as part of assignment specifications.

3. Summative assessment items will be given a numerical score.

4. Unit Grades will be calculated by aggregating the weighted result or numerical score for each summative assessment item.

5. All assessment items must be submitted. Assessment items must be passed overall.

6. If assignments are submitted after the due date without an approved extension of time, University penalties will apply.