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**TEACHING 'ENVIRONMENT RELATED ACTIVITIES'
AT KEY STAGE ONE TO HELP CHILDREN IN
DEVELOPING SCIENCE PROCESS SKILLS TO ATTAIN
SCIENTIFIC LITERACY IN FUTURE**

A PROJECT REPORT PRESENTED BY

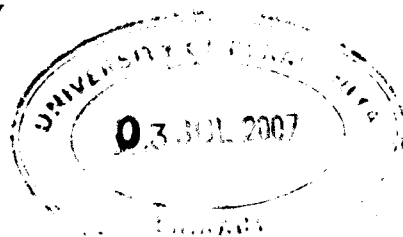
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**TEACHING 'ENVIRONMENT RELATED ACTIVITIES'
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Today we live in a world filled with scientific innovations due to the advancement of science and technology. Therefore society is complex and rapidly changing than ever before. In order to face the dynamic nature of the 21st century, an individual should possess multiple skills. The developed countries like USA are aiming to produce scientifically literate citizens to succeed challenging situations in the world. Although we are a developing nation we have to face the global society. However, this cannot be achieved within one or two years and it should start from primary level. According to the primary education reforms introduced in 1997, the primary cycle of education has been divided into three key stages as key stage one – grades 1 and 2, key stage two – grades 3 and 4 and key stage three – grade five. Primary curriculum consists of four main subjects and science is integrated in Environment Related Activities (ERA.) The aim of this study was to help children in key stage one to develop science process skills through the subject ERA, that are required to be a scientifically literate adult in future.

In order to achieve the aim of the study it was conducted in three phases. In the first phase data were collected relating to ERA using classroom observation, interviews and diagnostic questionnaire. In the classroom observation twelve teachers from three schools were observed while teaching ERA and detailed fieldnotes were prepared for each lesson. With the help of the fieldnotes detailed transcripts were made with the objective of understanding the real situation in the classrooms. During the second phase, activities were planned in different themes of ERA to develop process skills of children. In the third phase those activities were piloted in three selected classrooms. Classroom observation was conducted and fieldnotes were prepared. The necessary improvements were made with the data obtained from observation and the feedback obtained from teachers. Data obtained from different sources were analysed and identified the weaknesses in teaching ERA, the types of activities suitable for developing process skills and how children developed process skills through suggested activities.

It was evident from the study that many teachers had difficulties in teaching science related components of ERA due to the lack of subject matter knowledge and it led children to develop misconceptions. The students' active participation, which is expected in the student-centred teaching, was not observed in most of the classrooms. Almost all the teachers had weaknesses in the area of professional skills.

Among the most prominent of those were the introducing lessons, questioning, planning lessons, organizing groupwork and use of teaching aids. 85% of teachers were not competent in developing process skills of children especially due to the weaknesses in professional skills.

Children enjoyed and actively participated in introduced activities. Children developed process skills when they engaged in simple activities with the proper guidance of the teacher. Teachers' responses towards suggested activities indicated that children were very interested in learning through such activities and teachers motivated children to be inquisitive and investigative.

Children in key stage one developed misconceptions due to the limited science background of teachers. Although there were number of opportunities in the ERA syllabus to develop science process skills of students, they were rarely given proper guidance for that which is required to be a scientifically literate adult in future. The subject matter knowledge as well as the professional skills of primary teachers should be strengthened through workshops, allowing them to actively involve in activities where they could understand their own misconceptions and weaknesses.