INTRODUCTION TO SCRATCH
Lesson Plan: 03/ P/ 19

(Rough sketch – design phase)

Overall goal of the lesson: Children will start to use the scratch visual environment to write simple programs.
Prior knowledge required: Familiarity with concepts like programs, algorithms, sequences, loops and conditionals that were taught in previous CSpathshala lessons. Ability to use a basic computer, any web browser, keyboard and mouse.

MODULE 1:
Module time: 35 minutes
Goal: Learn how to start a Scratch environment and use a few basic blocks to write their first program.
Description: Scratch is a simple to use visual tool that helps children to create short and fun animations. In this process, they develop computational thinking and learn basic computer software concepts like developing an algorithm, writing a program to code the algorithm and debugging and running their program. In this lesson, they will learn some very simple Scratch concepts like sprite, looks and sound blocks and use them to make a simple "talking cat" program.

Material required:
Physical:
1. A computer that can run the desktop based Scratch 2.0 or browser-based Scratch programming environment at http://scratch.mit.edu.
Electronic:
PPT Presentation for Scratch Introduction
For the browser version, it is recommended that teachers create a login and password for the class to save their work and share projects. For a desktop PC based environment, it is not required.
WS for Scratch Introduction lesson.

Procedure Summary:

1. Go to Scratch start page on browser or PC, and walk through the basic steps of creating a new project, the concept of a sprite, the looks and sound blocks and write a few simple programs using the built-in sprite cat.
2. Work through some exercises and help the children write their own programs by making simple changes to the above ones.
3. Have the children think of and write one program of their own from their own imagination using what they have learned so far.

Procedure Details:

1. Create some excitement in the class about Scratch by saying something like follows:
   From today, all of you will all learn how to program computer! How does that sound? (Ask the class for expressions: scary, exciting, interesting ...)
   But did you know that you have already started. You already know so much about computers:
   - how to use computer keyboard and mouse
   - how to use a computer to do useful things like presentations and spreadsheets
   - how computers can be made to do a task with instructions. Here, revise the concepts of Algorithm & Program - the PPT re-uses some slides from an earlier lesson and gives an example of Algorithm and Program to color a grid.
   Then say: From today, instead of paper and pencil, you will be learning to write Programs using a fun tool called Scratch. It will be so much fun because we will make movies!!
2. Bring up Scratch. Start with Create a new project.

3. Introduce a Sprite - the pre-built one 'Cat' is sufficient to start. Give it a name like Billi.
4. Show them how to use the Looks block to show the Cat saying something.
5. Write the first program - make the Cat say 'Hello' and show them how to run it.
6. Explain what they just did. Show them how to run the
7. Now show them how to extend the program to make the cat say several sentences.
8. Show them how to save their work.
9. Next show them the Sound block to make the cat say 'meow' and to record their own sound.
10. Have them do some variations of the program on their own, such as making their own dialog for the cat. Time-permitting, present a few programs the children wrote to the class.

Assessment :
Write the programs described in the Worksheet using Scratch.

Information Broadcast :
In Computer Science, the children were introduced to the Scratch programming tool and wrote their first programs.