Loops
Lesson Plan: Class 02 / PS / 16

CSpathshala
Bringing computational thinking to schools

Overall goal of the lesson	Children will learn and understand the concept of Loops and how it can be used to avoid repetitive actions
Prior knowledge required	A general awareness about Loops based on what they have done in Class 1.

MODULE 1:   **Module time:** 35 minutes

Goal:	Help students understand how and when Loops should be used.
Description:	Students will understand the concept of Loops in computing to avoid repetitive actions.
Material required:	**Physical:** One copy of the worksheet (Class2-P16-WS) per child. **Electronic:** PPT Presentation as reference to help with teaching the concept of Loops (Class2-P16-PPT)
Procedure Summary:	1. Go over the PowerPoint presentation (Class2-P16-PPT-Loops) with the kids 2. Distribute the worksheets (Class2-P16-WS-Loops) to the children to review how much they have understood the concepts.

Procedure Details:	1. 1. Revise what kids have learnt about Loops in Class 1-P14
	    What is a Loop? The action of doing something over and over again
	    ● Explain with example, clap clap clap clap, can be said as clap 4 times.
	    ● Examples with merry-go-round and ferris wheel
	    ● Recap with, How to identify loops (when something repeats the same way again and again), how many repetitions are in a Loop (clap 4 times, or go in circle 6 times)
	
	2. Ask them if they have played the Angry Birds game (if they have not, tell them that it's a game played on computer and mobile, where the objective is for the bird to catch the pig).
	3. Talk to them about how we have to play smartly to help the bird catch the pig. Explain that sometimes we have to go up, down, sideways, and cross obstacles to get to the pig instead of going straight.
	4. In doing that sometimes we do the same exact thing over and over again several times. Wouldn't it be nice if we just told the computer, go 4 steps up and 3 steps to the left etc… instead of instructing at every step.
	5. This is where the "REPEAT" is helpful. it lets us give fewer instructions and get more work done!!
	6. Go over each slide and explain how it is done.
	7. After a few slides, ask how they would solve a particular problem before you show the answer in the next slide.
	8. Summarize the concept of 'loop', how using REPEAT helps in doing the same work with less effort.
	9. Distribute the worksheet for them to solve few problems.

Procedure Details cont…:	**Assessment:** Explain how Loop is used to avoid repetitive actions.

	Information Broadcast: In Computer Science, the children learnt how and when to use Loops to avoid repetitive actions.