

	<b><u>Sequence of Instruction Level-1</u></b> <b><u>Session-2</u></b>
Session Title	Drawing shapes in Scratch
Objective	To draw basic shapes using motion and pen tab
Topics/Concept	Basic shapes
Blocks	Motion Tab- turn, move, go to and set x and y Pen Tab- pen up, down, clear
Session Plan	<p><b>Unplugged activity:</b></p> <ol style="list-style-type: none"> <li>1. The facilitator revises what was taught in the last session with emphasis on degrees and directions. <b>(7-10 minutes)</b></li> <li>2. The facilitator asks the students to write down steps to create a square and triangle. <b>(15-20 minutes)</b></li> </ol> <p>Please note:</p> <ol style="list-style-type: none"> <li>I. The students have to mention the degrees/angles the sprite will turn and move to make a square (90°) and triangle(120°).</li> </ol> <ol style="list-style-type: none"> <li>3. The facilitator revises what is Flowcharts and Algorithm and how to create them (<i>covered in Pseudocode</i>)</li> <li>4. After writing the Algorithm and creating flowcharts for the shapes, the facilitator asks the students to draw the shapes on Scratch 2.0.</li> </ol> <p><b>Plugged activity:</b></p> <ol style="list-style-type: none"> <li>1. The facilitator asks the students to attach the system to Raspberry Pi and open scratch 2.0 <b>(10-15 minutes)</b>.</li> <li>2. The facilitator asks the students to write down the script to create a square on scratch.</li> <li>3. The facilitator lets the student try and then gives them a hint:  and  block can be useful.</li> <li>4. After the students manage to write the script, the facilitator asks them to use the pen tab, to draw the square.</li> </ol>

```

when clicked
pen down
set pen color to purple
move 200 steps
turn 90 degrees

```

```

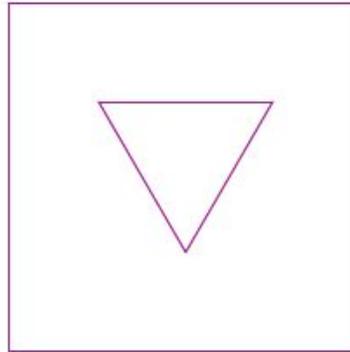
when clicked
move 100 steps
turn 120 degrees
move 100 steps
turn 120 degrees
move 100 steps
turn 120 degrees

```

Scripts:

(Square)

(Triangle)



Please note:

- I. Blocks to be covered:    
 and  .
- II. The facilitator has to **mandatorily** ask all the students to make a flowchart before starting any plugged activities.

*Please note: We have tried to explain the movement of the sprite using the move and turn block, the facilitator is free to create an activity of their own to explain the move and turn concept.*

5. The facilitator then asks the students to draw a triangle.

**Review Questions:**

1. What happens if the pen up/ down block is used?
2. How will you make other shapes like rectangle, circle, and semicircle?

3. The facilitator asks, how did you draw a triangle? *By giving instructions to the sprite, using blocks.* Did you give one instruction at a time or you placed one block below the other? The facilitator tells the students, a set of instructions were placed one after another, *this is known as Sequence of Instructions. The facilitator then explains what is scripts.*
4. The facilitator can ask questions based on classroom interaction, focusing on What and How of the project created.

The facilitator teaches students how to save their projects in the Raspberry Pi Directory.