MAKEBOT
STEAMing THE NATION

SCRATCH ADVANCE

01

Topic
Conditional statements, loops, sprite communication, Events

Learning Outcome
Build an app to test the number on the basis of even and odd property

02

Topic
App components, Multiple sprite programming, logical operators

Learning Outcome
Build an app which represents our solar system

03

Topic
Events, Functions, Pen tool, Numbers

Learning Outcome
Build a game to create your own design using geometrical shapes

04

Topic
Intents, All events, Conditional loops

Learning Outcome
Design a game to see effect of friction on moving objects like car.

05

Topic
Game elements, GUI, Loops

Learning Outcome
Students will learn to make "guess the number" game

06

Topic
Events, forever loop, variables

Learning Outcome
Build an app to understand concept of distance by measuring distance between two sprites.

07

Topic
Broadcast statements, loops, sensing

Learning Outcome
Build a program to understand concept of circuit completion using mBlock.

08

Topic
Conditional statement, game elements, Events, Multiple sprites programming

Learning Outcome
Build your own racing game using mathematical addition properties

09

Topic
Wait statement, Functions, Recursive loops, GUI

Learning Outcome
Build a game to see effect of motion and time on sprite

10

Topic
While loop, operators, variables, Functions

Learning Outcome
Build an app to find out square and square root of any number

11

Topic
Coding extensions, For loop, Event, If...else commands

Learning Outcome
Build an app to represent data using graphs

12

Topic
Culmination 1

Learning Outcome
Students will create and present their project

13

Topic
IOT applications, GUI, broadcast, loops, Cloud database

Learning Outcome
Build an IOT based app to report real time weather data

14

Topic
Events, sensing blocks, conditional statements

Learning Outcome
Build an app which explain different parts of flower & it uses

15

Topic
Block creation, forever loop, Events, pen tool

Learning Outcome
Build a program which will make different 2D or 3D designs

16

Topic
Pen tool, loops, events handler

Learning Outcome
Build an application like paint app

17

Topic
Events, forever loop, variables, costumes, backpack

Learning Outcome
Build an app of calculator to solve all your arithmetical problems

18

Topic
Events, forever loop, variables, multiple sprite programming

Learning Outcome
Build an app of calculator to solve all your arithmetical problems

19

Topic
Conditional statement, game elements, Events, Multiple sprites programming

Learning Outcome
Build a game of pacman level 1 with advance gaming tool

20

Topic
Wait statement, Functions, Conditional statement, game elements, GUI

Learning Outcome
Build a game of pacman 2 with addition of game components

21

Topic
Conditional statement, game elements, Events, Multiple sprites programming

Learning Outcome
Add different parameters like life, golden dots in pacman game

22

Topic
Intents, All events, Conditional loops, machine learning blocks

Learning Outcome
Students will learn about concept of machine learning

23

Topic
App components, Multiple sprite programming, logical operators, data storing

Learning Outcome
Build an app for face detection system

24

Topic
Culmination 2

Learning Outcome
Students will create and present their project

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SCRATCH ADVANCE

25
Topic
Math functions, extensions, events, variables

Learning Outcome
Build a game using concept of probabilityt

26
Topic
Events, sensing blocks, variables

Learning Outcome
Students will learn about reversible and irreversible changes

27
Topic
Block creation, forever loop, Events, pen tool

Learning Outcome
Learn how symmetry and reflection works through example

28
Topic
Mathamatical functions, formulas, operators

Learning Outcome
Students will learn the math concept

29
Topic
Mathamatical functions, formulas, operators

Learning Outcome
Students will learn the math concept

30
Topic
Block creation, forever loop, Events, pen tool

Learning Outcome
students will understand the concept of periodic table and elements of periodic table

31
Topic
My block creation, variables, loops motion

Learning Outcome
Make a game based on Newton's law of motion

32
Topic
My block creation, variables, loops motion

Learning Outcome
Build a game based on Newton's law of motion

33
Topic
AI related blocks, loops, Events

Learning Outcome
Students will learn about concept of AI and will build an app to recognize handwritten text

34
Topic
Coding extensions, For loop, Event, If...else commands, text to speech

Learning Outcome
Build an app to recognize your speech

35
Topic
AI blocks, TTS, sprite communication, Events

Learning Outcome
Build an AI based chatbot to answer your questions

36
Topic
Culmination 3

Learning Outcome
Students will create and present their project