



Programming

Learn basic - complex programming language, innovate various animation and games

Age 5-7

ScratchJr Builder

Learn Icon-Block Programming, Build your own animation & game with ScratchJr

<p>Lv.1 Story Animations</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Sequence Events Movement Sound <p>Planet Liberi</p>	<p>Lv.2 Interactive Projects</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Messages Start on Tap Parallel Script Control <p>Planet Theosurus</p>
<p>Lv.3 Simple Mech. Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Single Button Controller Timer Broadcasts Ending Scenarios <p>Planet Héros</p>	<p>Lv.4 Complex Mech. Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Multiple Controller Interactions Win/Lose Scenarios Score System <p>Planet Terra</p>

Age 7-9

Scratch Maker

Learn Visual Programming, Make various 2D animation & game with Scratch

<p>Lv.1 Interactive Stories</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Sequence Go-to & Glide Sprite Clicked Sound <p>Planet Liberi</p>	<p>Lv.2 Key-Controlled Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Movements Variables Conditionals Clones <p>Planet Saude</p>
<p>Lv.3 Complex Move Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Key-press Loops Bouncing Mechanism <p>Planet Retro</p>	<p>Lv.4 Mouse-Controlled Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Control Adv. Clones Mouse Events Score System <p>Planet Terra</p>
<p>Lv.5 Advanced Mouse Controlled Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Extension Effects Clones Local Variables <p>Planet Artes</p>	<p>Lv.6 Advanced Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Multiple Ending Pages Adv. Move My Blocks <p>Planet Inventia</p>

Age 10-12

Roblox Creator

Learn Text Programming, Create 3D game & animation with Roblox

<p>Lv.1 3D World Environment</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Parts/Physics Terrains Lighting Environment <p>Planet Iris</p>	<p>Lv.2 Musical Environment</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Environment Effects User Interface Sound & Music <p>Planet Cantio</p>
<p>Lv.3 Mechanical Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Physics Functions Events Conditional Structures <p>Planet Koda</p>	<p>Lv.4 Multiplayer Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Remote Events Dictionary Client & Server Arrays <p>Planet Multum</p>
<p>Lv.5 Modular Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Module Scripts Database Twine Object Vector CFrame <p>Planet Natura</p>	<p>Lv.6 Monetization Games</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Game Loop Monetization Object Oriented Programming <p>Planet Militia</p>

Age 13-15

Applied STEAM

Learn Integrated Science, Tech, Engineering, Art, Math, innovate various applied programming project

3D Bricks Designer

Learn Science, Tech, Engineering, Art, Math Design various 3D projects with Bricks and Tinkercad

<p>Lv.1 Shapes Exploration</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Geometry shapes Brick exploration Material characteristic Simple 3D Diorama <p>Planet Figura</p>	<p>Lv.2 Simple 3D Design</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Natural materials 3D Design Digital Platform Tinkercad Intro Family Members <p>Planet Familia</p>
<p>Lv.3 Complex 3D Design</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Complex 3D Design Complex 3D Diorama Precise Positioning Function of Public Places <p>Planet Aria</p>	<p>Lv.4 Detailed 3D Object Printing</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Detailed 3D Design Scale and Proportion 3D Print Technology Mass Transportation <p>Planet Vectura</p>

Robotic Inventor

Learn Science, Tech, Engineering, Art, Math Invent your own functional robots with Robotic Kit

<p>Lv.1 Electronic Circuits</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Components Conductors Open/Close Circuits <p>Planet Elektra</p>	<p>Lv.2 Moving Machines</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Motor Prototyping Series & Parallel Circuits <p>Planet Vecto</p>
<p>Lv.3 Light & Sound Controller</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Intro to Microbit Buttons, Sounds, LED <p>Planet Lumina</p>	<p>Lv.4 Sensor-Controlled Proj.</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Sensors Accelerometer Electronic Components <p>Planet Dostro</p>
<p>Lv.5 Servo-Controlled Proj.</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Servo Motors Pins & Circuits Electric Currents <p>Planet Rota</p>	<p>Lv.6 Ultrasonic Sensor Proj.</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Introduction of Phytton Functional Projects <p>Planet Notion</p>

IoT Developer

Learn Science, Tech, Engineering, Art, Math Develop practical smart tools with Internet of Things

<p>Lv.1 LED Light Project</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Nodemcu Arduino IDE LED Light Module Control System <p>Planet Vibran</p>	<p>Lv.2 Temperature Monitoring Project</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> LED Display Module DHT-11/DHT-22 Sensor Data Sending and Receiving Displaying Data <p>Planet Tempa</p>
<p>Lv.3 Distance Measurement Project</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> SR-04 Sensor Buzzer Alarm Push Notification Service <p>Planet Ultra</p>	<p>Lv.4 Moving Object Project</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Actuators Motor Servo Motor Servo Structures Control Motor Servo <p>Planet Servos</p>
<p>Lv.5 Multiple Sensor Project</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> Breadboard PIR Sensor Gas MQ Sensor Breadboard Structures <p>Planet Tuple</p>	<p>Lv.6 Voice and Automaion Project</p> <p>Concepts Learned:</p> <ul style="list-style-type: none"> HTTP IFTTT Google Assistant/Siri/Alexa Voice Input Service <p>Planet Autonon</p>



Programming

Mempelajari bahasa pemrograman dasar-kompleks. Membuat inovasi berbagai animasi dan game menarik.

5-7 Tahun

ScratchJr Builder

Belajar pemrograman Icon-block, membuat animasi dan game dengan ScratchJr.

<p>Lv.1 Story Animations</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Sequence Events Movement Sound <p>Planet Liberi</p>	<p>Lv.2 Interactive Projects</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Messages Start on Tap Parallel Script Control <p>Planet Theosaurus</p>
<p>Lv.3 Simple Mech. Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Single Button Controller Timer Ending Scenarios <p>Planet Héros</p>	<p>Lv.4 Complex Mech. Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Multiple Controller Interactions Win/Lose Scenarios Score System <p>Planet Terra</p>

7-9 Tahun

Scratch Maker

Belajar pemrograman visual. Membuat berbagai animasi dan game 2D dengan Scratch.

<p>Lv.1 Interactive Stories</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Sequence Go-to & Glide Sprite Clicked Sound <p>Planet Liberi</p>	<p>Lv.2 Key-Controlled Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Movements Variables Conditionals Clones <p>Planet Saude</p>
<p>Lv.3 Complex Move Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Key-press Loops Bouncing Mechanism <p>Planet Retro</p>	<p>Lv.4 Mouse-Controlled Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Control Adv. Clones Mouse Events Score System <p>Planet Terra</p>
<p>Lv.5 Advanced Mouse Controlled Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Extension Effects Clones Local Variables <p>Planet Artes</p>	<p>Lv.6 Advanced Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Multiple Ending Pages Adv. Move My Blocks <p>Planet Inventia</p>

10-12 Tahun

Roblox Creator

Belajar pemrograman tekstual. Membuat berbagai animasi dan game 3D dengan Roblox.

<p>Lv.1 3D World Environment</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Parts/Physics Terrains Lighting Environment <p>Planet Iris</p>	<p>Lv.2 Musical Environment</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Environment Effects User Interface Sound & Music <p>Planet Cantio</p>
<p>Lv.3 Mechanical Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Physics Functions Events Conditional Structures <p>Planet Koda</p>	<p>Lv.4 Multiplayer Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Remote Events Dictionarys Client & Server Arrays <p>Planet Multum</p>
<p>Lv.5 Modular Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Module Scripts Database Tweening Object Vector CFrame <p>Planet Natura</p>	<p>Lv.6 Monetization Games</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Game Loop Monetization Object Oriented Programming <p>Planet Militia</p>

13-15 Tahun

Applied STEAM

Mengintegrasikan pembelajaran Science, Tech, Engineering, Art, and Math. Membuat inovasi project pemrograman yang aplikatif.

3D Bricks Designer

Mempelajari Science, Tech, Engineering, Art, and Math. Belajar membuat karya 3D dengan Bricks dan Tinkercad.

<p>Lv.1 Shapes Exploration</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Geometry shapes Material characteristic Brick exploration Simple 3D Diorama <p>Planet Figura</p>	<p>Lv.2 Simple 3D Design</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Natural materials 3D Design Digital Platform Tinkercad Intro Family Members <p>Planet Familia</p>
<p>Lv.3 Complex 3D Design</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Complex 3D Design Complex 3D Diorama Precise Positioning Function of Public Places <p>Planet Aria</p>	<p>Lv.4 Detailed 3D Object Printing</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Detailed 3D Design Scale and Proportion 3D Print Technology Mass Transportation <p>Planet Vectura</p>

Robotic Inventor

Mempelajari Science, Tech, Engineering, Art, and Math. Belajar membuat kreasi robot sendiri.

<p>Lv.1 Electronic Circuits</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Components Conductors Open/Close Circuits <p>Planet Elektro</p>	<p>Lv.2 Moving Machines</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Motor Prototyping Series & Parallel Circuits <p>Planet Vecto</p>
<p>Lv.3 Light & Sound Controller</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Intro to Microbit Buttons, Sounds, LED <p>Planet Lumina</p>	<p>Lv.4 Sensor-Controlled Proj.</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Sensors Buzzer Electronic Accelerometer Components <p>Planet Destro</p>
<p>Lv.5 Servo-Controlled Proj.</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Servo Motors Pins & Circuits Electric Currents <p>Planet Rota</p>	<p>Lv.6 Ultrasonic Sensor Proj.</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Introduction of Phytton Functional Projects <p>Planet Notion</p>

IoT Developer

Mempelajari Science, Tech, Engineering, Art, and Math. Belajar menciptakan Smart Tools menggunakan Internet of Things.

<p>Lv.1 LED Light Project</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Nodemcu Module Arduino IDE LED Light Module Parallel Control System <p>Planet Vibran</p>	<p>Lv.2 Temperature Monitoring Project</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> LED Display Module DHT-11/DHT-22 Sensor Data Sending and Receiving Displaying Data <p>Planet Tempa</p>
<p>Lv.3 Distance Measurement Project</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> SR-04 Sensor Buzzer Alarm Push Notification Service <p>Planet Ultra</p>	<p>Lv.4 Moving Object Project</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Actuators Motor Servo Motor Servo Structures Control Motor Servo <p>Planet Servos</p>
<p>Lv.5 Multiple Sensor Project</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> Breadboard PIR Sensor Gas MQ Sensor Breadboard Structures <p>Planet Tuple</p>	<p>Lv.6 Voice and Automaion Project</p> <p>Konsep yang dipelajari:</p> <ul style="list-style-type: none"> HTTP IFTTT Google Assistant/Siri/Alexa Voice Input Service <p>Planet Autonon</p>