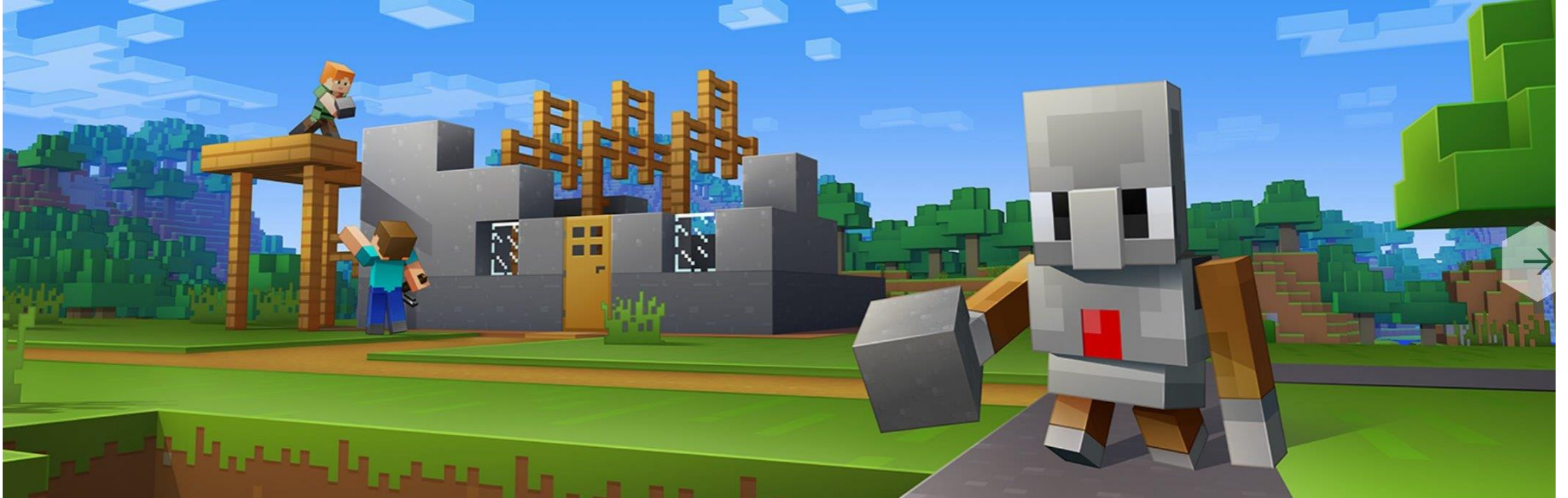




轉變電腦科學的學習經驗-Code Builder

Minecraft Code Builder



轉變學習電腦科學的經驗

Minecraft Code Builder



深化Minecraft經驗

結合其他程式教學平台，例如：
Tynker, ScratchX, 以及微軟開源平台Make Code

程式設計立即開始

遊戲內會有一個小幫手

“The Agent”

運算思維培養

在開放的環境中應用運算思維

從圖像式程式到JavaScript

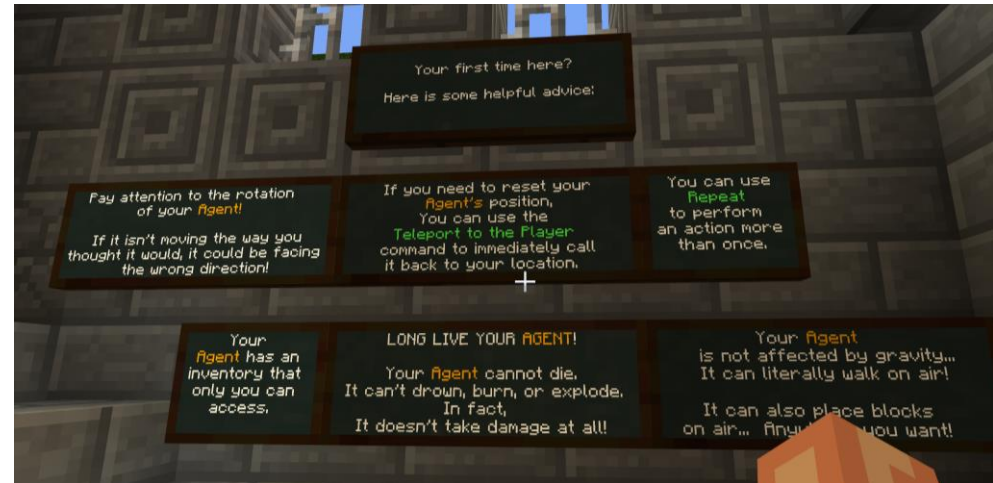
學習從基礎到進階的程式編碼

程式設計立即開始- The Agent



The Agent的角色

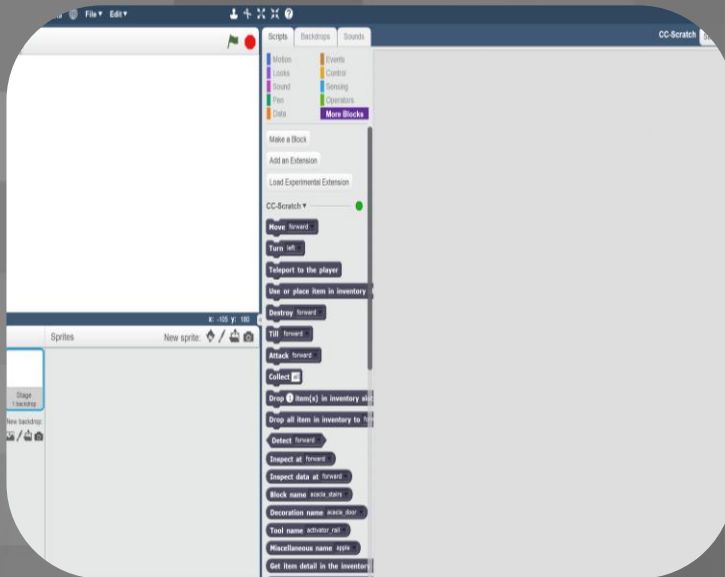
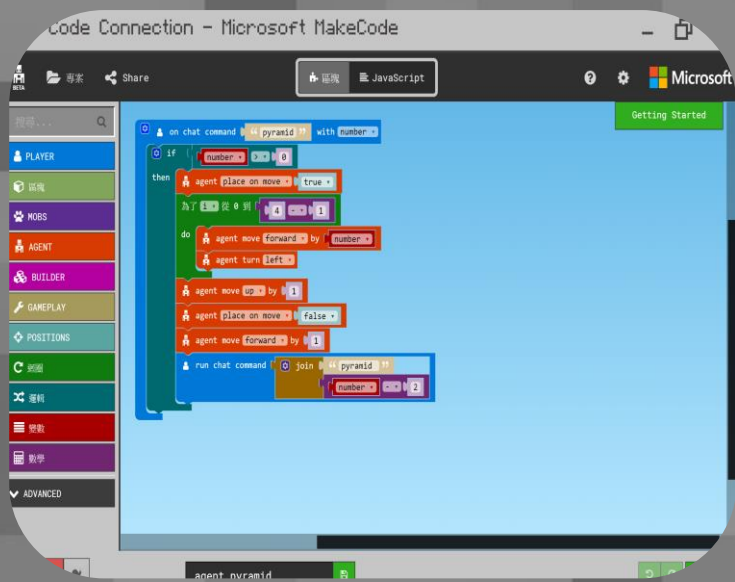
1. 執行程式碼
2. 執行重複的指令- Repeat
3. 隨時在開放的世界中被召喚- Teleport to the Player
4. 提供只有您可以使用的物品
5. 不死之身
6. 不受地心引力影響



MakeCode

Scratch

Tynker



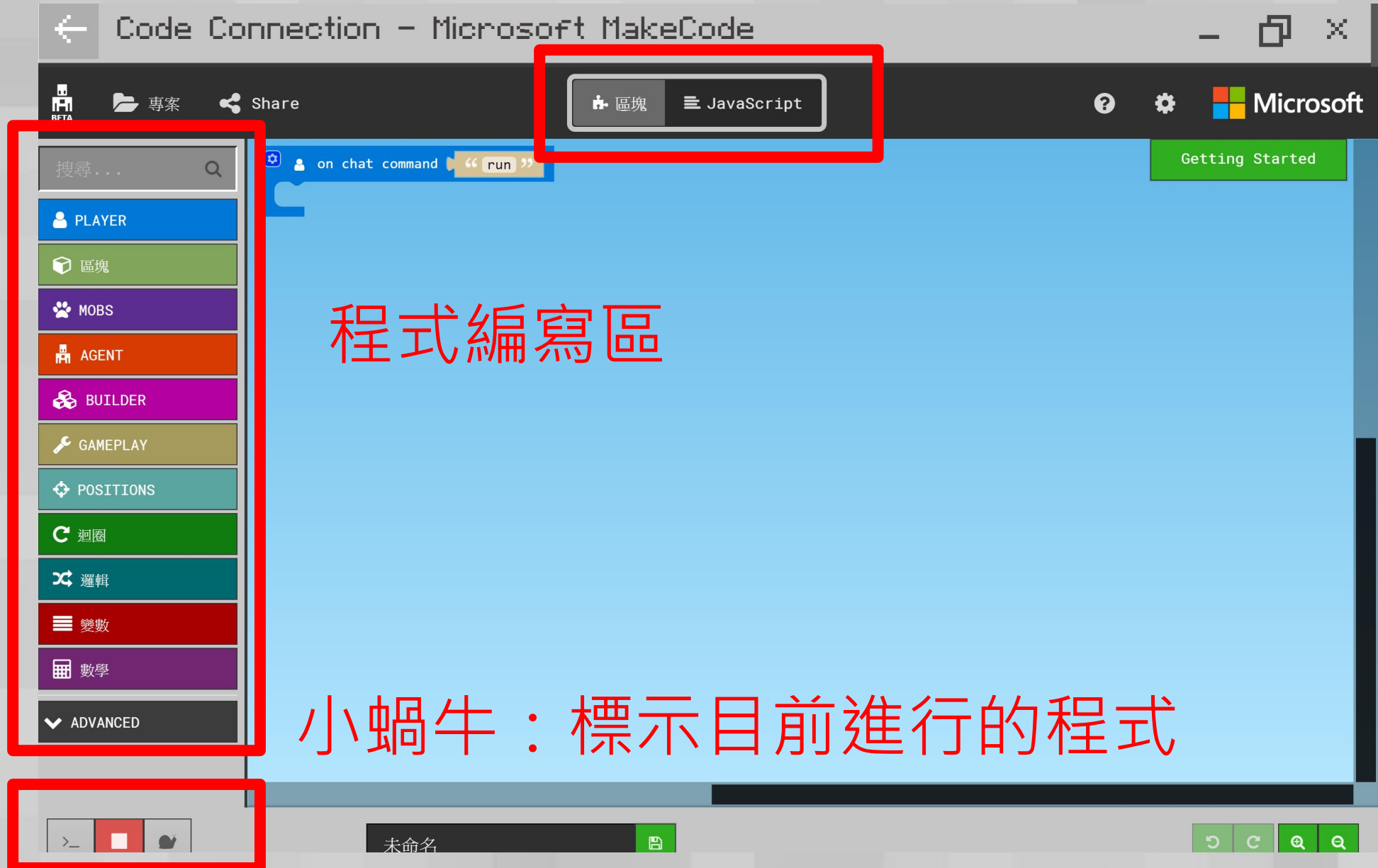
結合的程式教學平台

選擇教師與學生需要的程式教學平台

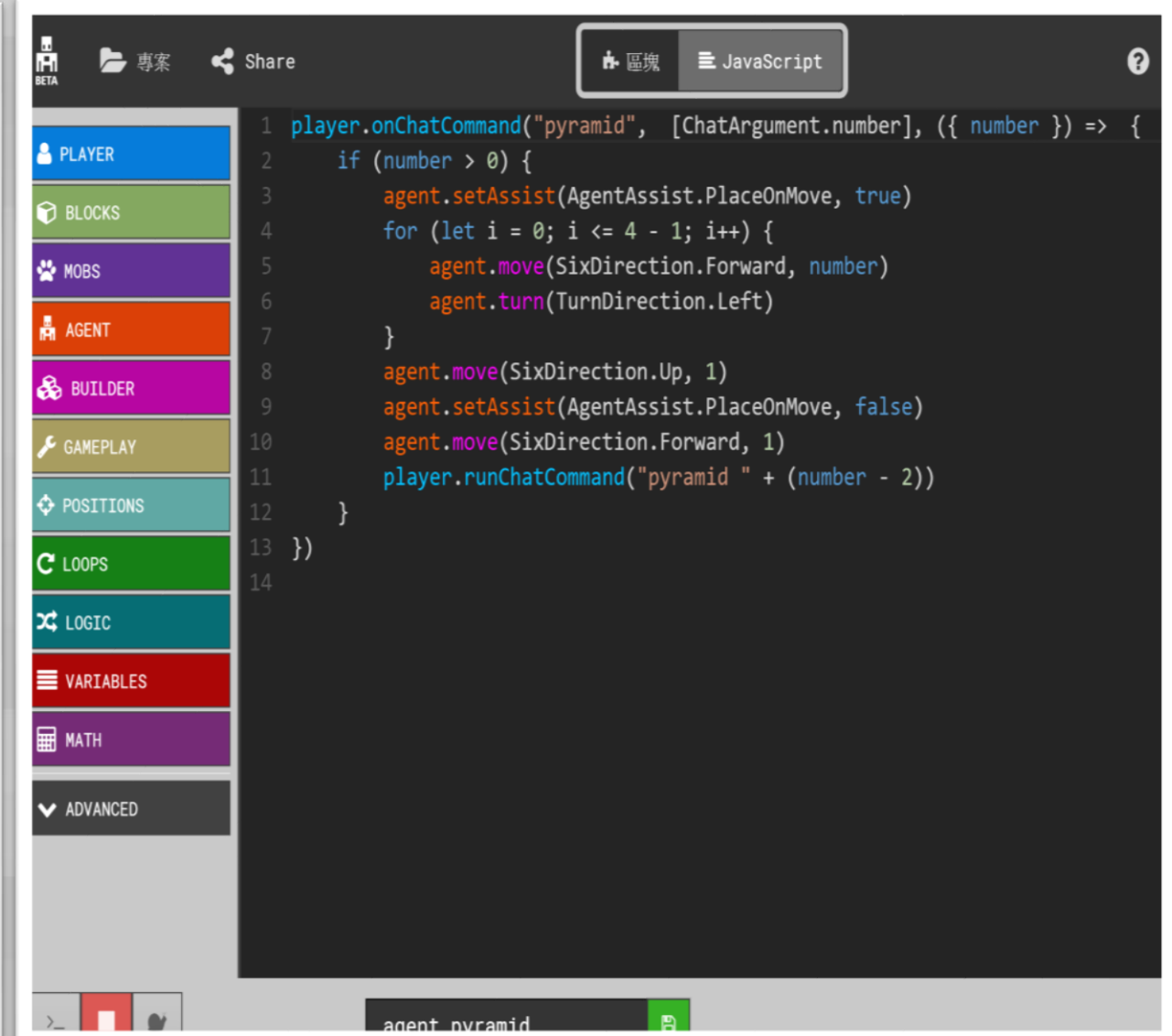


MakeCode

選擇拖拉方塊或JavaScript



MakeCode-隨時對照圖像式程式與程式語言



MakeCode-邊執行遊戲確認程式編寫



MakeCode-學習資源與範例

My Stuff Tutorials Examples x



Agent Moves
Get the agent to go somewhere.



Agent Build
The agent can really make stuff.



Compass Rose
Let's see the world directions



Mega Jump
Give your player a real boost!



Flower Trail
Mark your path, see where you go.



Super Digger
Go mining and dig up a lot of blocks.



Billboard
Print a big message.

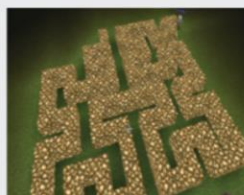


Fast Forward
Take control of time!

My Stuff Tutorials Examples x



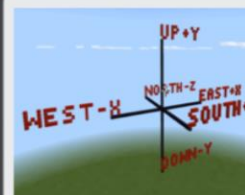
Agent Pyramid
Pyramids everywhere with the agent!



Hilbert Fractals
A fun maze-like fractal built with the agent



3D Axis
A giant 3D Axis



Compass
A giant compass



Build a House
Learn how to make a building



TNT Cannon
Learn how to make a cannon with redstone and

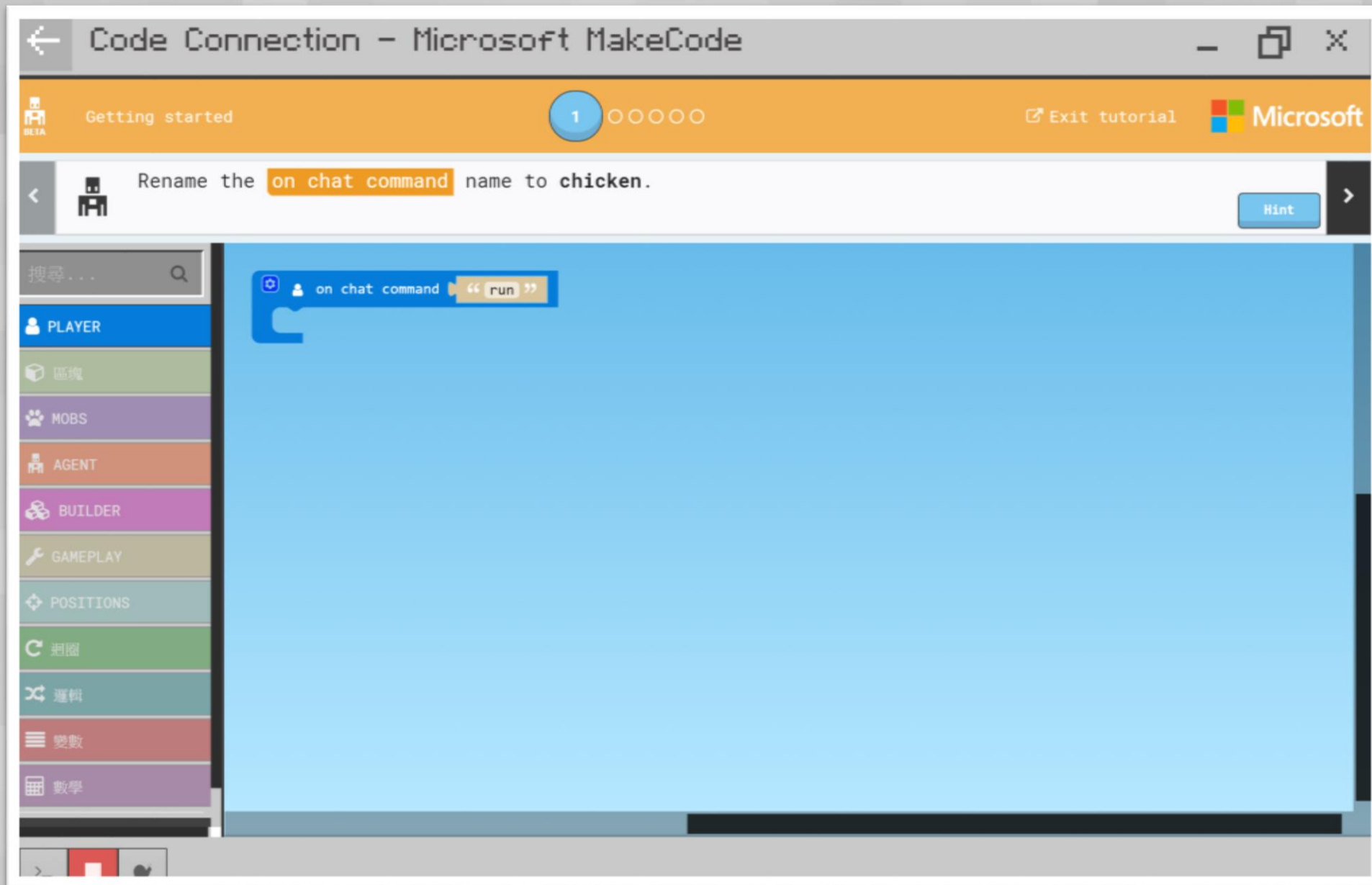


1000 TNT
A 1000 TNT ready to blow up

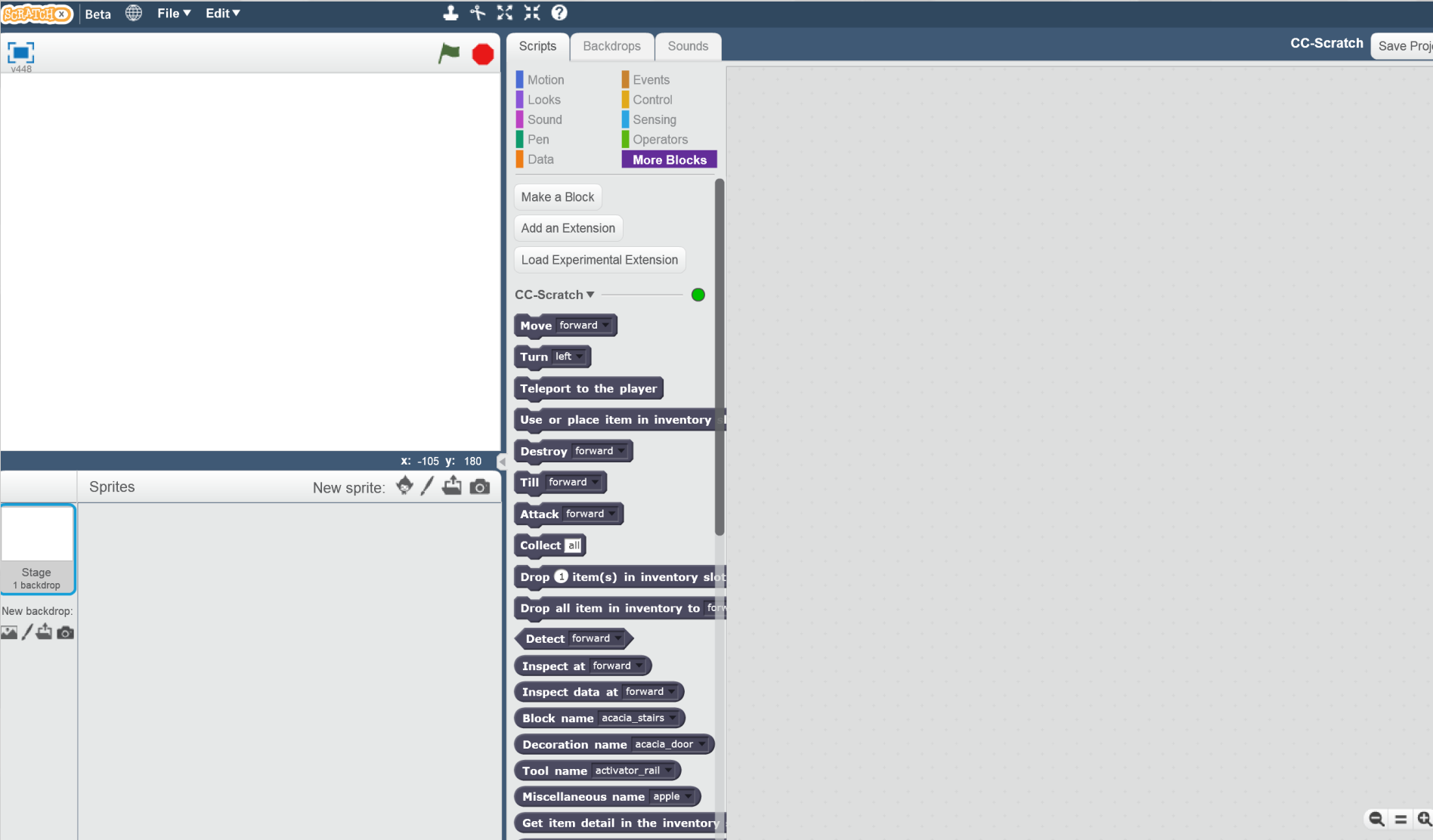


Wipe Out
Flatten your world in one command

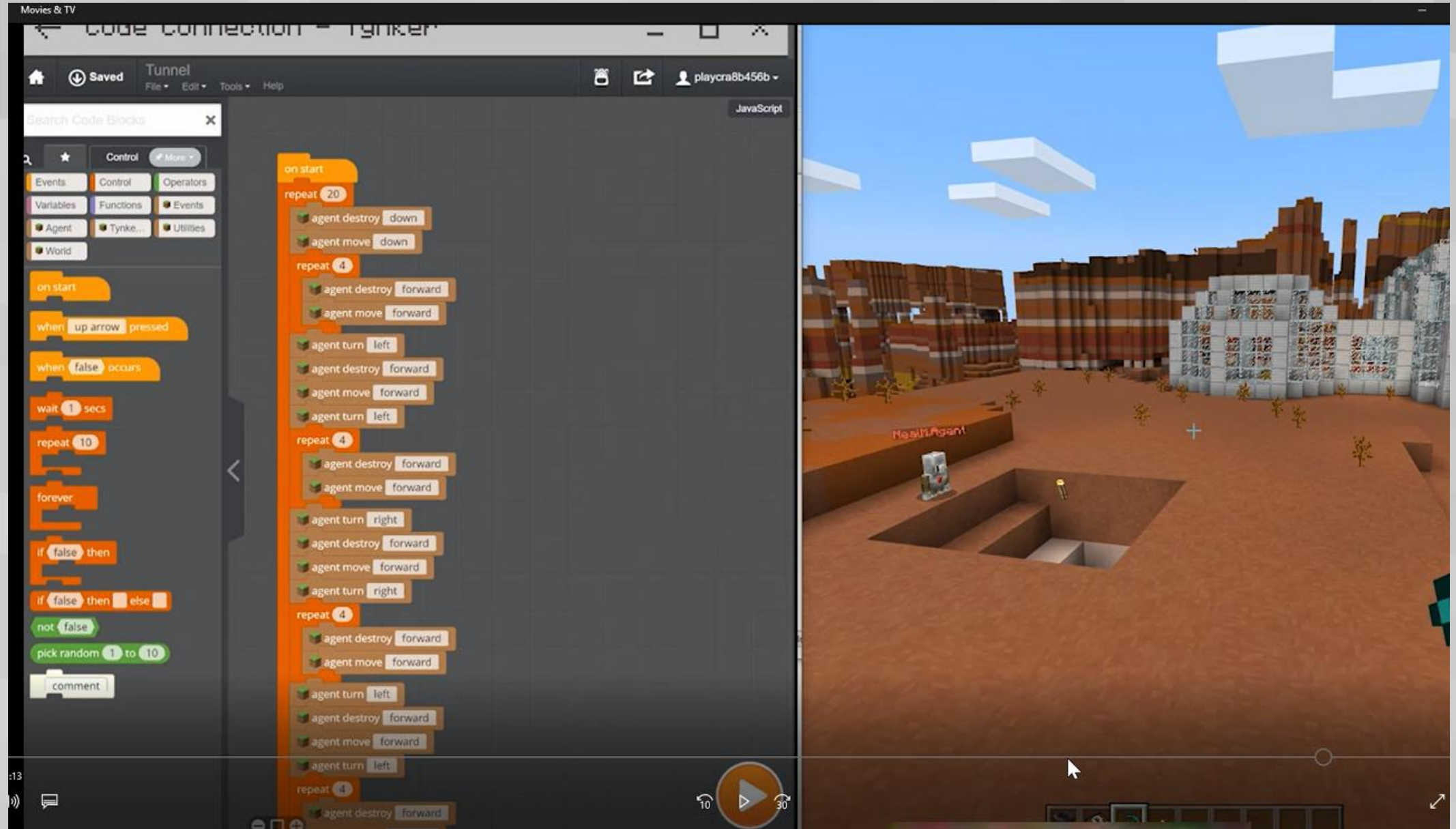
MakeCode-學習資源：一步一步引導



Scratch



Tynker





LAUNCHPAD



MY PROJECTS



LEARN TO CODE



MINECRAFT



EXPLORE



SIGN OUT

TYNKER



Code Commander

Earn 60 XP

START



Platformer Starter Kit

Earn 5 XP

START



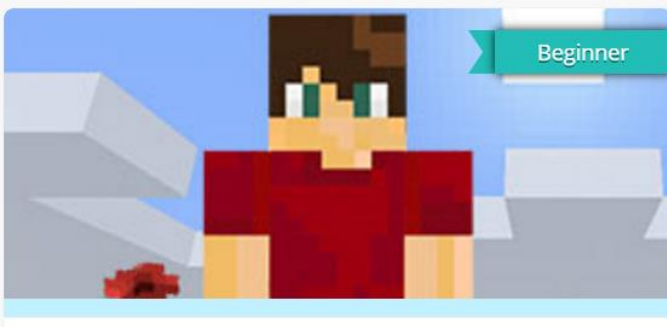
Mother's Day Mad Libs

Earn 100 XP

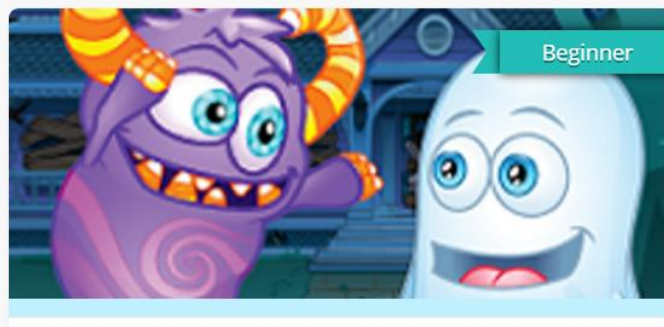
START

Learn

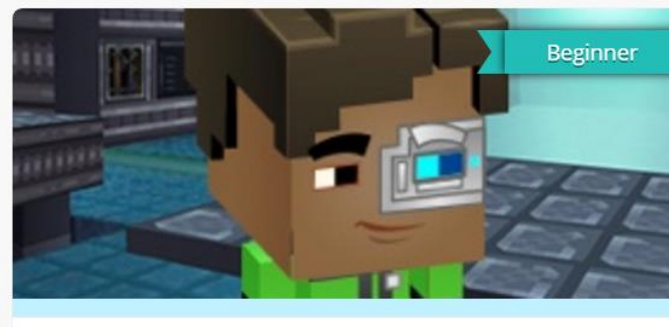
[View All](#)



Beginner



Beginner



Beginner

Tynker

Tynker

教育程式語言

類似Scratch

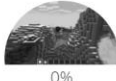
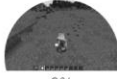
Javascript

The screenshot displays the Tynker website's 'Mod Starter Pack' page. On the left is a dark sidebar with navigation links: a green apple icon for '漢威' (Hanwei), 'LVL ⚡ XP', 'LAUNCHPAD', 'MY PROJECTS', 'LEARN TO CODE' (highlighted with a book icon), 'MINECRAFT' (with a game block icon), 'EXPLORE' (with a group icon), and 'SIGN OUT' (with a door icon). The main content area has a blue header with '« All Courses' and 'Mod Starter Pack'. Below this, 'Recent Lessons' are listed in a grid of seven cards. Each card shows a lesson number, a thumbnail image, a progress bar at 0%, the lesson title, a brief description, and a 'START' button. The lessons are: 1. INTRODUCTION TO MODDING (Watch a video about Minecraft modding in Tynker.), 2. SKINS EDITOR (Create custom skins for your Minecraft character.), 3. MOD DESIGNER (Find out how to make your own mods using the mod designer.), 4. ALWAYS DAYLIGHT (Create a mod so that night never comes!), 5. FLAMING EGG (Light fire whenever an axe hits its target), 6. PATH OF PETALS (Create an event that ensures flowers where you), and 7. THUNDER DOME (A magical battle arena. All players enter. All). A 'HELP' button with a question mark icon is located in the bottom right corner.

« All Courses

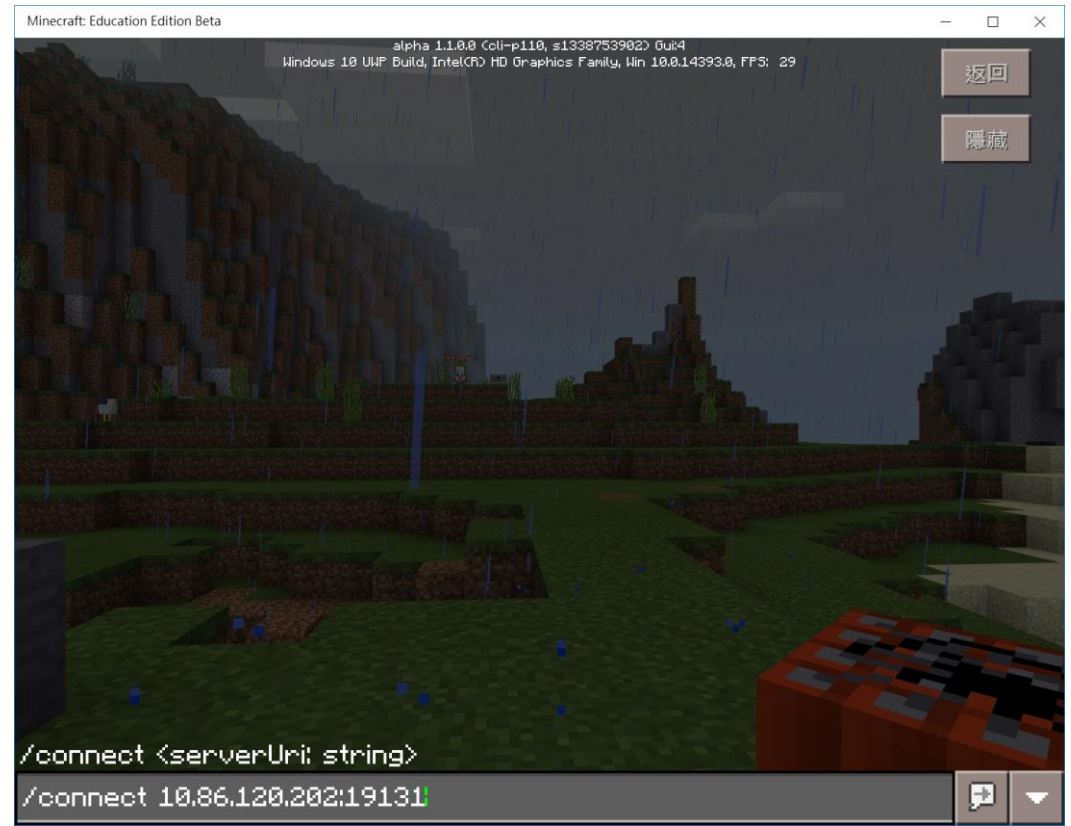
Mod Starter Pack

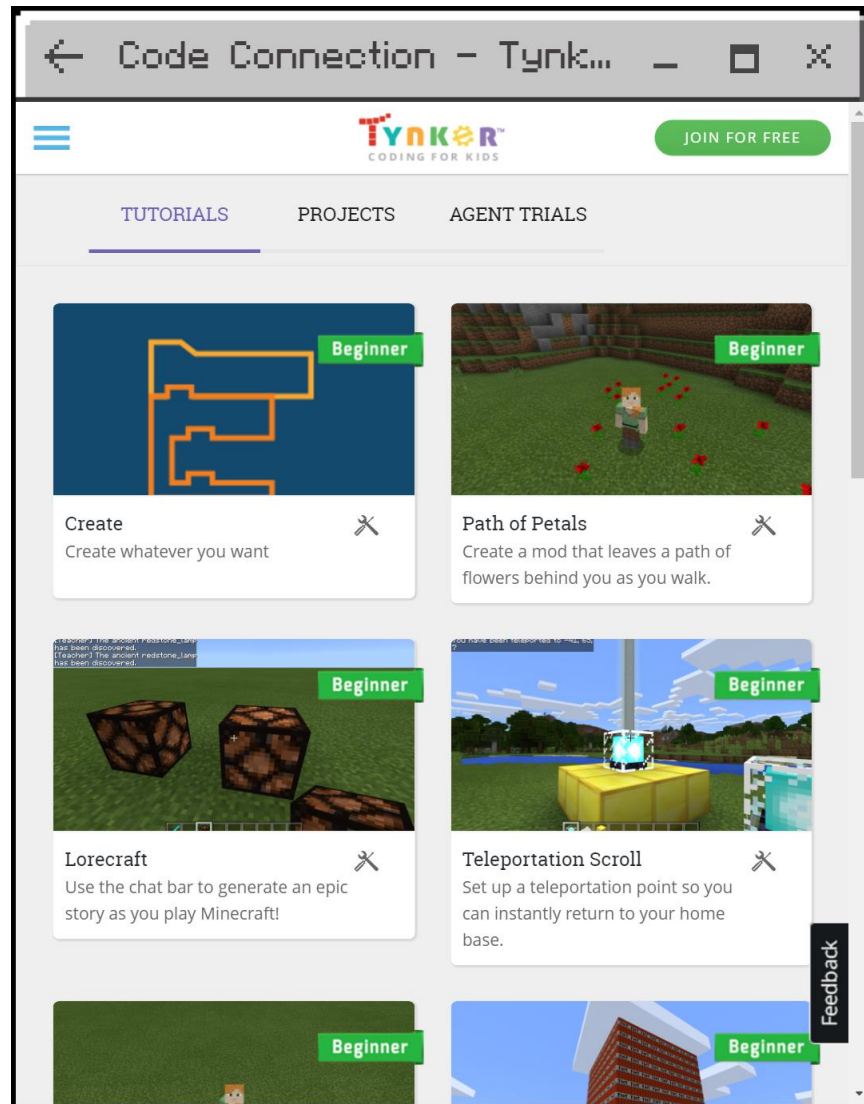
Recent Lessons

- 1**  0%
INTRODUCTION TO MODDING
Watch a video about Minecraft modding in Tynker.
[START](#)
- 2**  0%
SKINS EDITOR
Create custom skins for your Minecraft character.
[START](#)
- 3**  0%
MOD DESIGNER
Find out how to make your own mods using the mod designer.
[START](#)
- 4**  0%
ALWAYS DAYLIGHT
Create a mod so that night never comes!
[START](#)
- 5**  0%
FLAMING EGG
Light fire whenever an axe hits its target
- 6**  0%
PATH OF PETALS
Create an event that ensures flowers where you
- 7**  0%
THUNDER DOME
A magical battle arena. All players enter. All

[HELP](#)

如何連接Minecraft教育版與Tynker



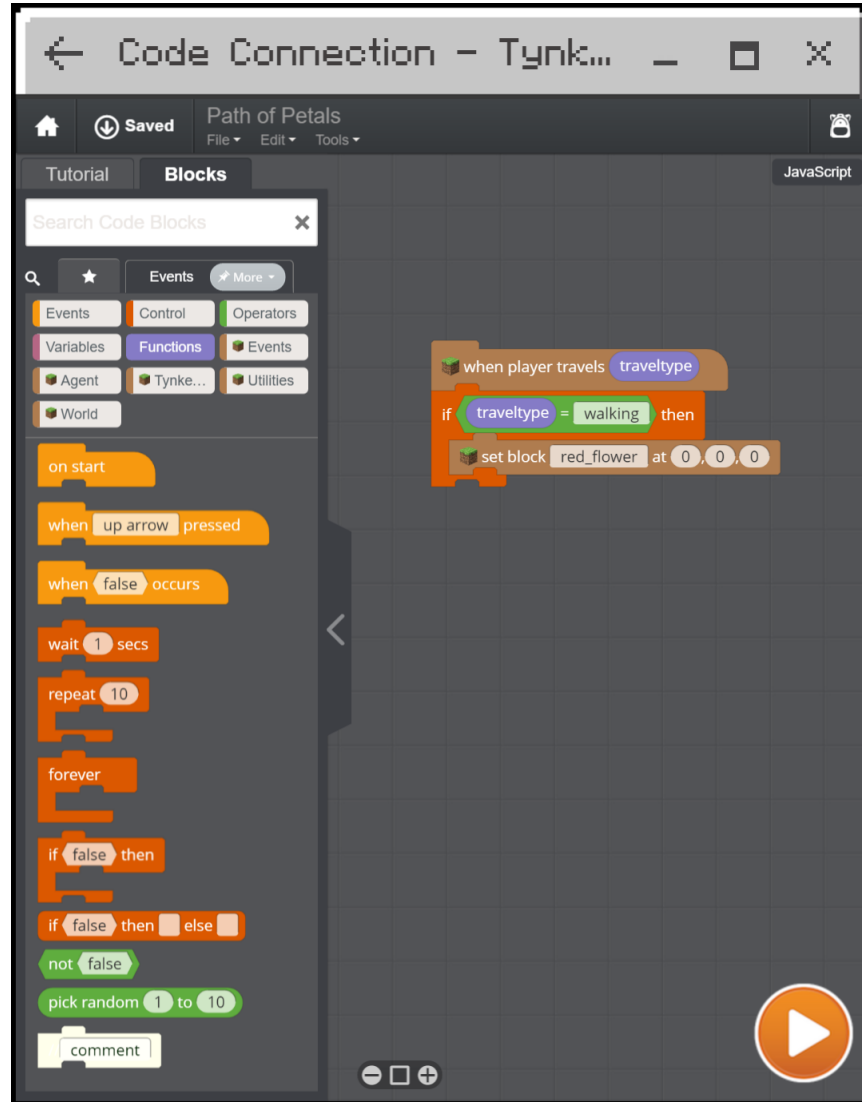


Tynker

不同難度教程

可儲存程式

多樣技術挑戰



Tynker Coding

拖拉方塊

參數、條件句、迴圈、函數、註解

← Code Connection - Tynk...

Save

TNT Cannon

File Edit Tools

Tutorial

Blocks

JavaScript

Step 2 / 8

Setup the Cannon

The cannon consists of two basic pieces:

- The cannon base
- The cannon circuitry

build cannon

move TynkerBot to player

move TynkerBot forward by 1 blocks

save TynkerBot checkpoint as start

build base

build circuit

Place these code blocks under "build cannon" function block. This will be our function to build the cannon.

It should look this:

build cannon

move TynkerBot to player

move TynkerBot forward by 1 blocks

save TynkerBot checkpoint as start

build base

build circuit

BackNext

on start

build cannon

repeat 64

give tnt to nearest player

build cannon

move TynkerBot to player

move TynkerBot forward by 1 blocks

save TynkerBot checkpoint as start

build base

build circuit

build base

go to TynkerBot checkpoint named start

build filled box using stone

with width: 3 height: 1 depth: 9

move TynkerBot right by 1 blocks

move TynkerBot forward by 1 blocks

build filled box using air

with width: 1 height: 1 depth: 8

place block flowing_water at Tyn

move TynkerBot forward by 7

place block stone_slab at TynkerBot

← Code Connection - Tynk...

Save

TNT Cannon

File Edit Tools

Blocks

```
1 this.onStart(function() {
2   build_cannon();
3   for (var _repeatIdx1=0; _repeatIdx1<64; _repeatIdx1++) {
4     mc.give("tnt", "nearest player");
5   }
6 });
7
8 function build_circuit() {
9   mc.bot.restoreCheckpoint("start");
10  mc.bot.move("up", 1);
11  mc.bot.box("filled", "redstone_wire", 1, 1, 7);
12  mc.bot.move("forward", 1);
13  mc.bot.box("filled", "unpowered_repeater", 1, 1, 6);
14  mc.bot.move("forward", 6);
15  mc.bot.box("filled", "stone", 1, 1, 2);
16  mc.bot.move("up", 1);
17  mc.bot.box("filled", "redstone_wire", 1, 1, 2);
18  mc.bot.restoreCheckpoint("start");
19  mc.bot.move("right", 1);
20  mc.bot.move("up", 1);
21  mc.bot.place("wooden_pressure_plate");
22  mc.bot.move("right", 1);
23  mc.bot.box("filled", "redstone_wire", 1, 1, 8);
24 }
25
26 function build_cannon() {
27   mc.bot.moveToPlayer();
28   mc.bot.move("forward", 1);
29   mc.bot.saveCheckpoint("start");
30   build_base();
31   build_circuit();
32 }
33
34 function build_base() {
35   mc.bot.restoreCheckpoint("start");
36   mc.bot.box("filled", "stone", 3, 1, 9);
37   mc.bot.move("right", 1);
38   mc.bot.move("forward", 1);
39   mc.bot.box("filled", "air", 1, 1, 8);
40   mc.bot.place("flowing_water");
41   mc.bot.move("forward", 7);
42   mc.bot.place("stone_slab");
43 }
44
45
```

Tynker學習資源

[←](#) Code Connection - Tynker

 [SIGN IN](#) [JOIN FOR FREE](#)

[TUTORIALS](#) [PROJECTS](#) [AGENT TRIALS](#)



Solve

Solve agent trials on your own

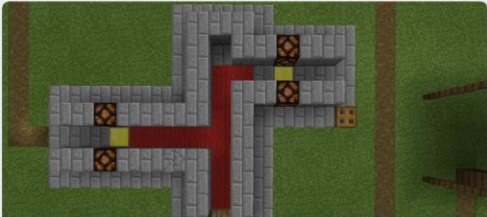




Agent Trials 1

Your first challenge.





Agent Trials 2

Move the Agent from the starting plate to reach the gold plate at the end.





Agent Trials 3

Move the Agent from the starting plate to reach the gold plate at the end.





Agent Trials 4

Move the Agent from the starting plate to reach the gold plate at the end.

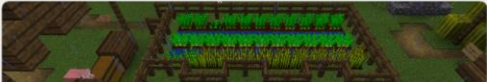




Agent Trials 5

Command the agent to destroy and collect blocks.





[Feedback](#)