MINECRAFT
EDUCATION EDITION
Computing with Minecraft
Microsoft

Lesson 1:

Code a conversation & Teleport Agent

WHAT WE'LL LEARN

To play Minecraft: Education Edition

To use block programming in Microsoft MakeCode

To change your Minecraft world through coding

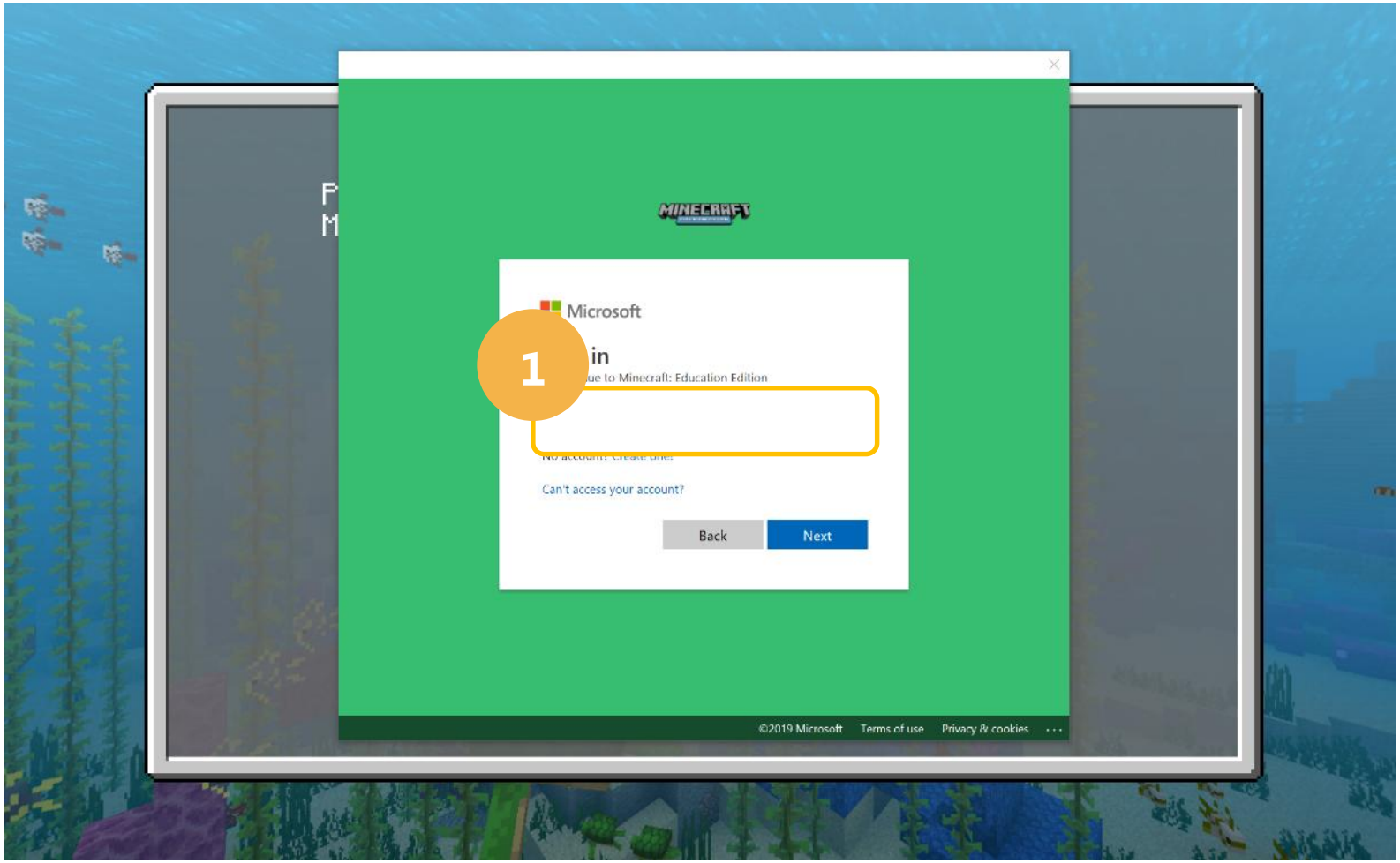
WHAT IS MINECRAFT?

A game about:

- Placing blocks
- Building anything you can imagine
- Going on grand expeditions

Let’s explore!

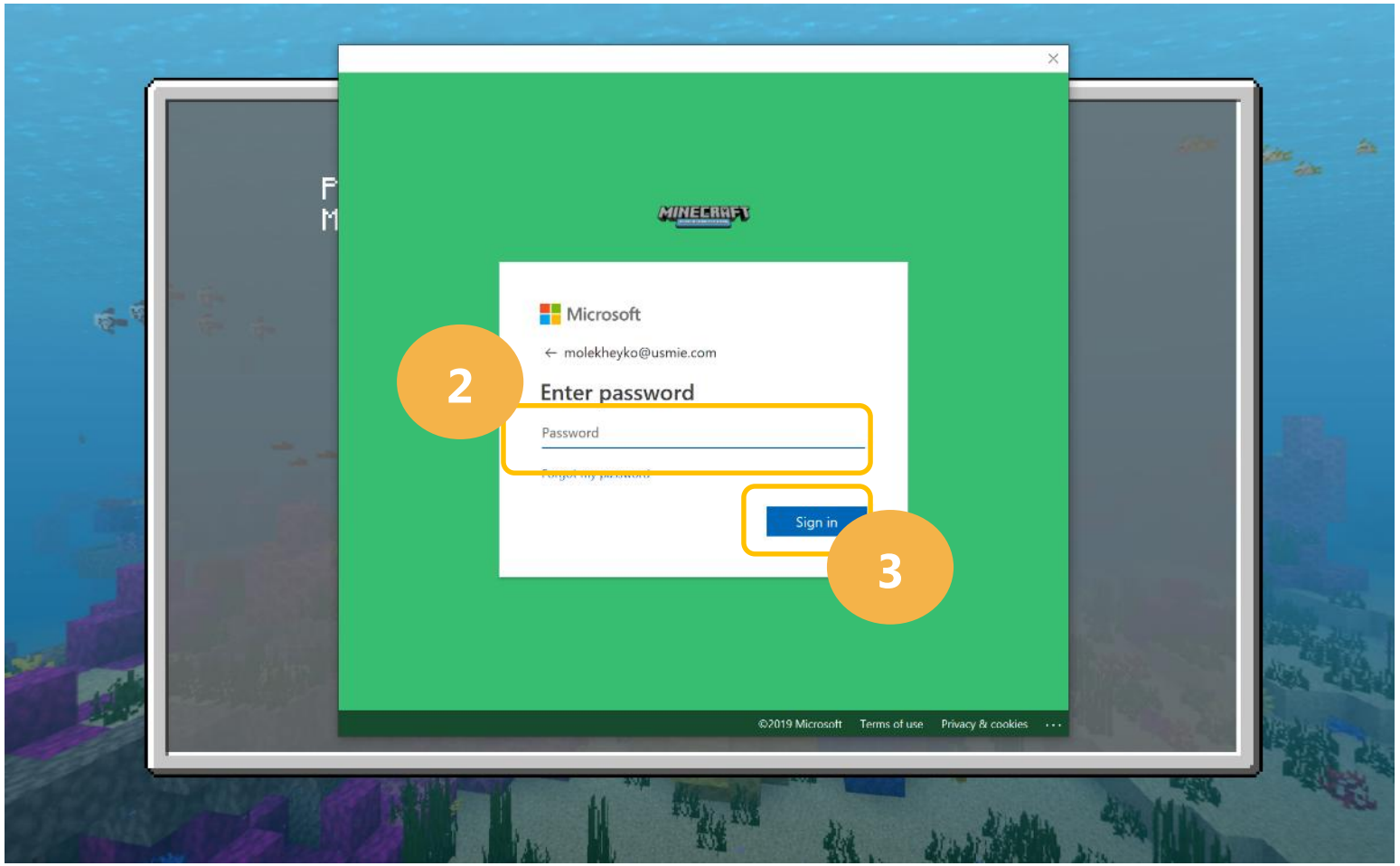
SIGN IN



1

Enter your login

SIGN IN



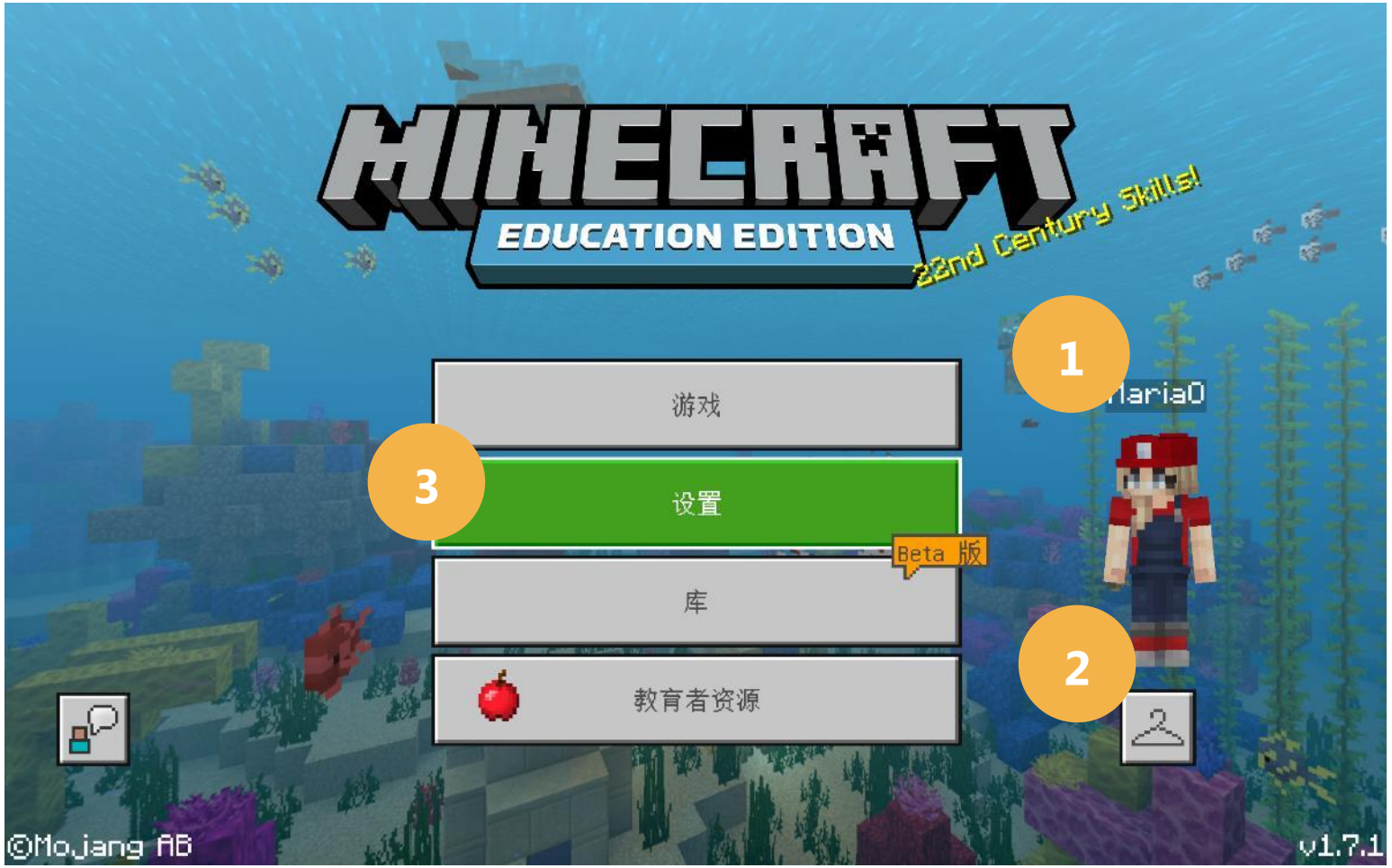
2

Enter your password

3

Click Sign in

SETTINGS



1

The name of your character

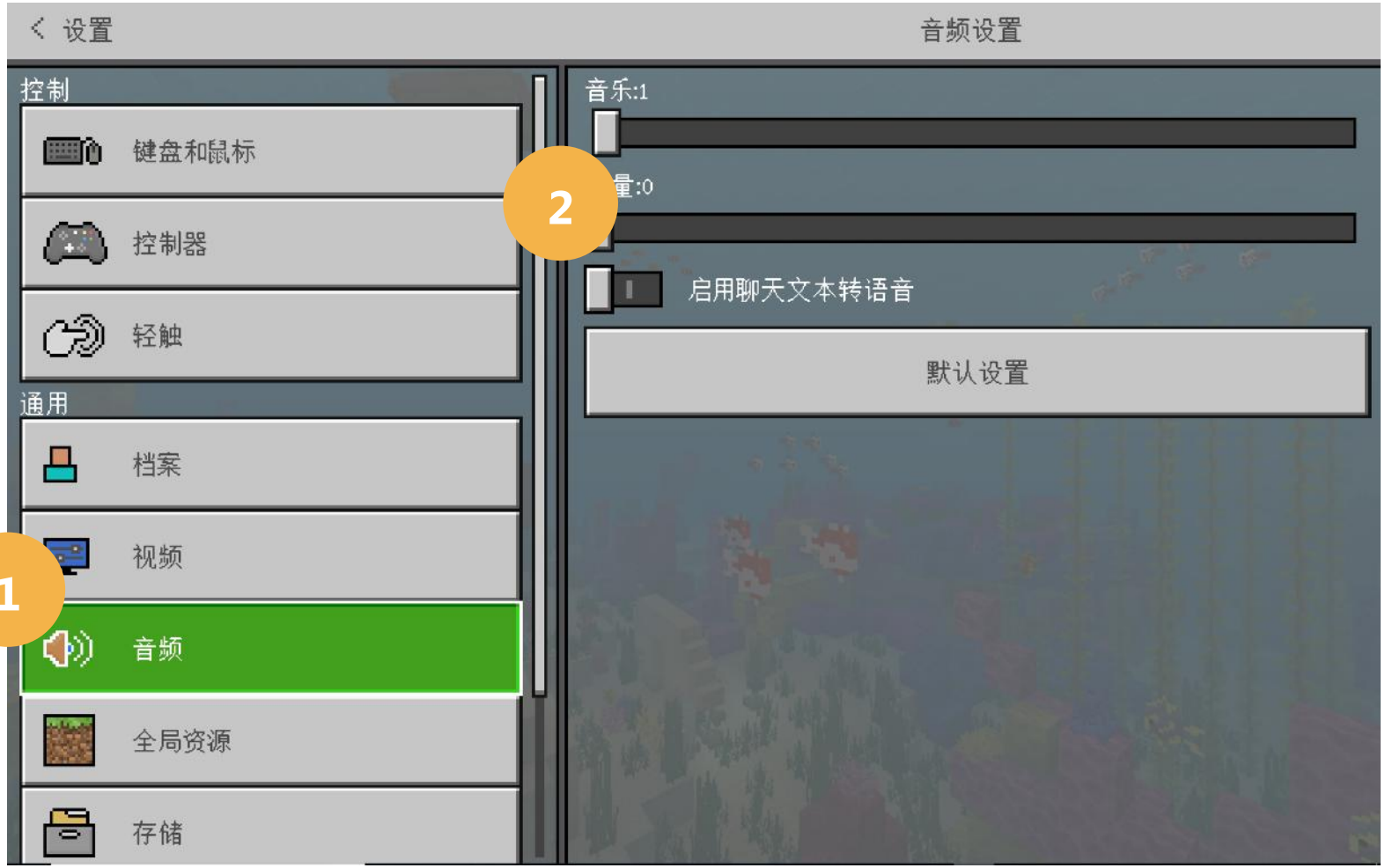
2

Select to change your appearance

3

Click Settings when you are ready

CHECK YOUR SOUND SETTINGS

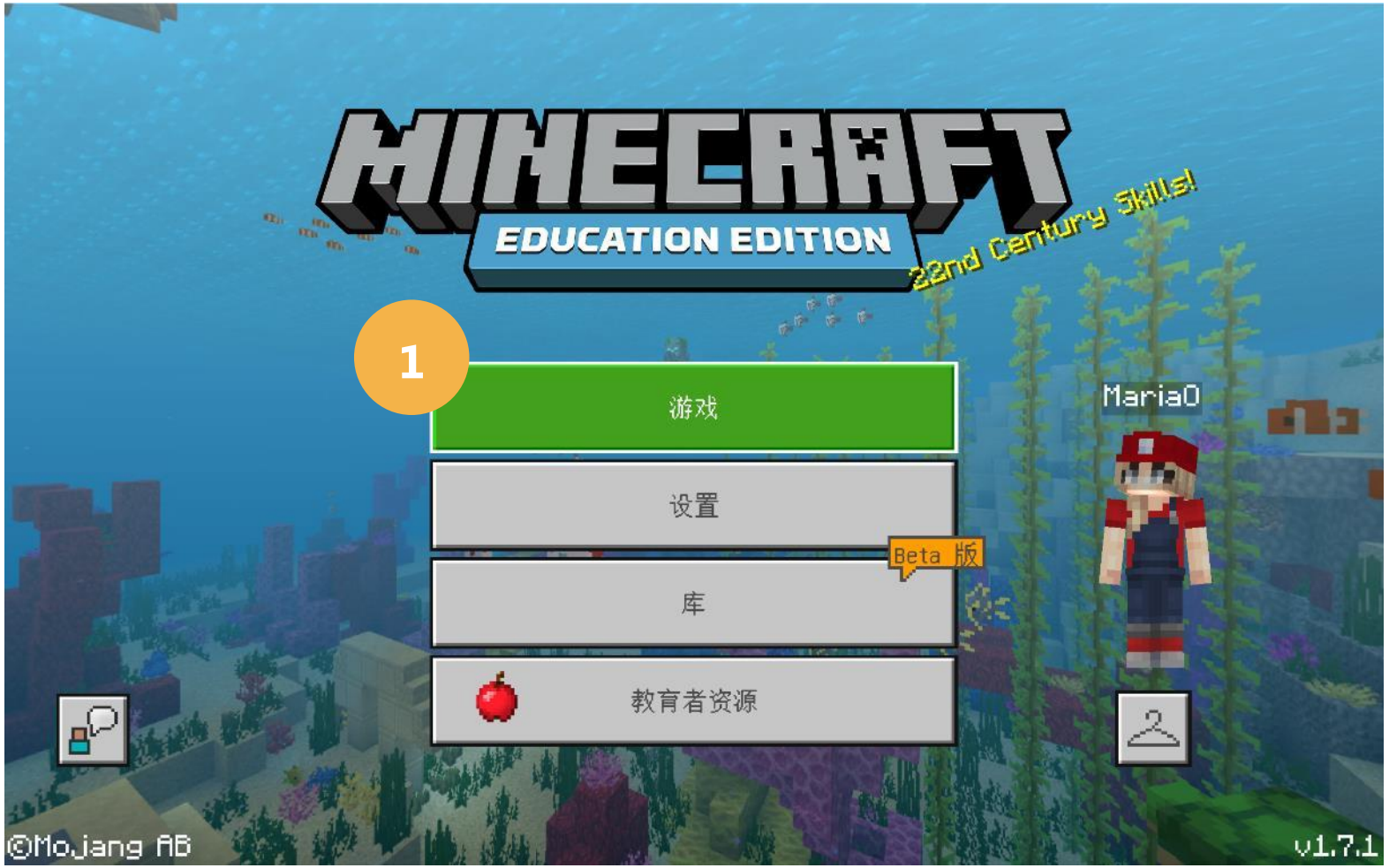


1

Select audio settings

2

Ensure that your sound volume is 0


MINECRAFT
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22nd Century Skills!
1
游戏
设置
Beta 版
库
教育者资源
Maria0
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1

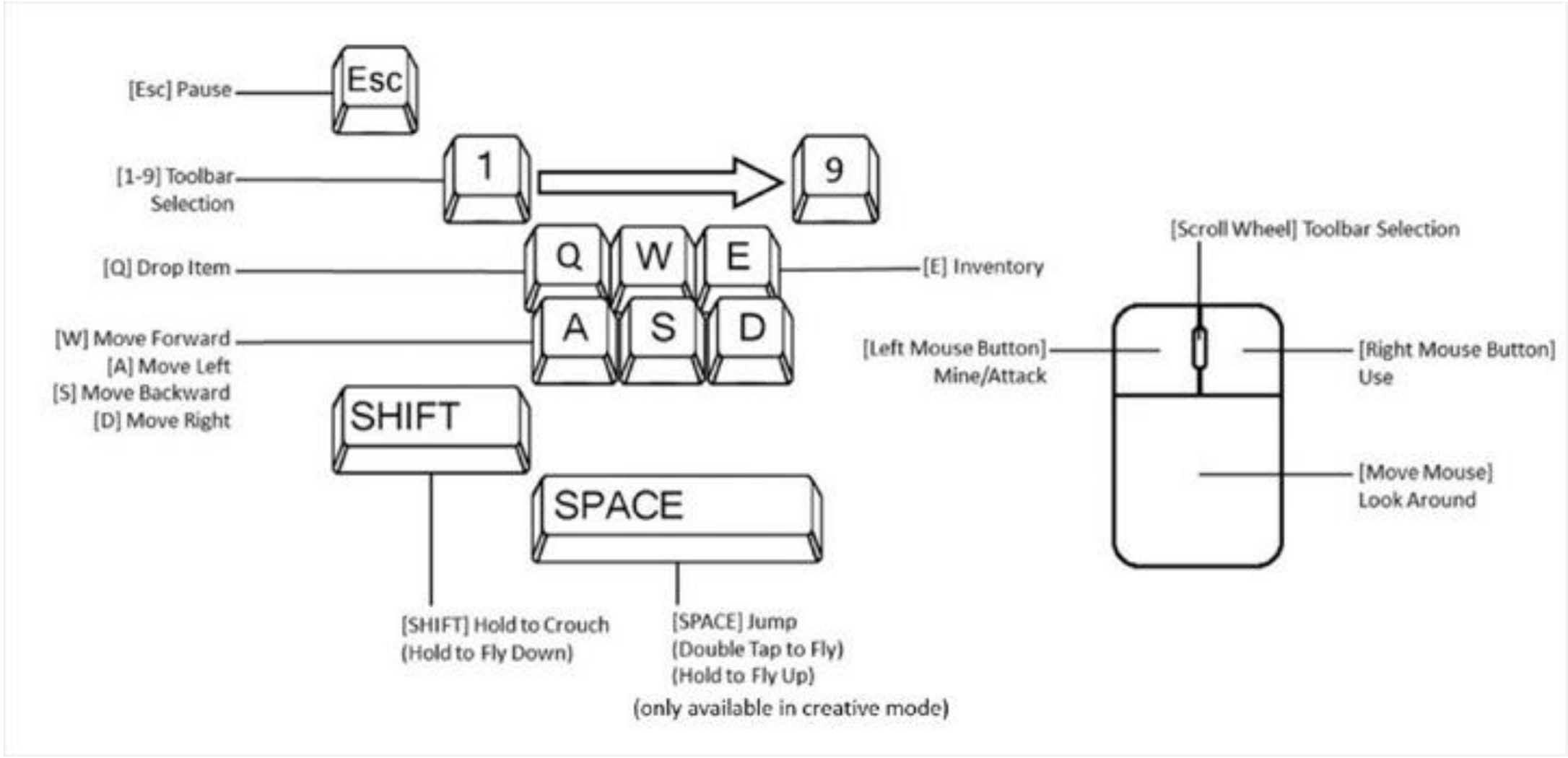
Click Play

SELECT THE WORLD

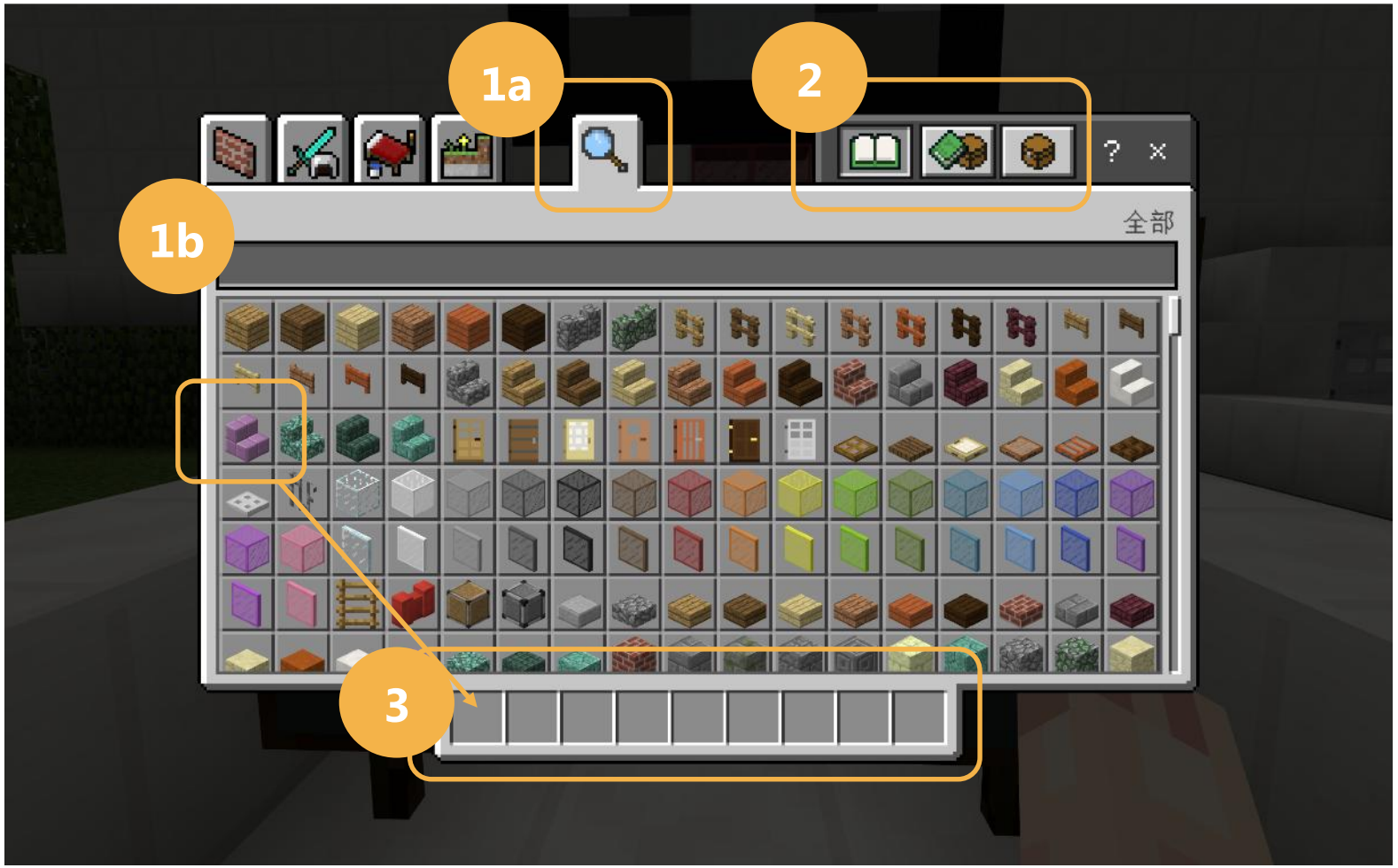
1

Select the world ‘Lesson 1’

CONTROLS


[Esc] Pause
Esc
[1-9] Toolbar Selection
1
9
[Q] Drop Item
Q
W
E
[E] Inventory
[W] Move Forward
[A] Move Left
[S] Move Backward
[D] Move Right
A
S
D
SHIFT
SPACE
[SHIFT] Hold to Crouch
(Hold to Fly Down)
[SPACE] Jump
(Double Tap to Fly)
(Hold to Fly Up)
(only available in creative mode)
[Scroll Wheel] Toolbar Selection
[Left Mouse Button]
Mine/Attack
[Right Mouse Button]
Use
[Move Mouse]
Look Around

INVENTORY



1a 1b

Search using type an item your are looking f

3

Place an item into the hotbar

YOUR TURN TO PLAY

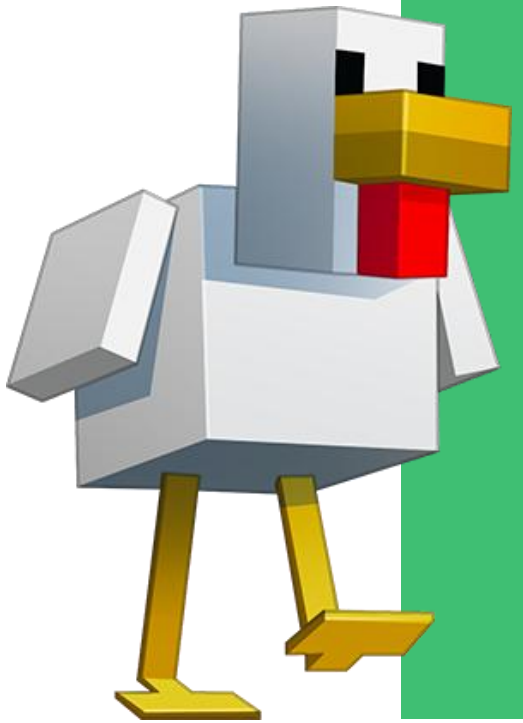
Use keyboard and mouse controls

Look and move around

Play with your inventory

Build and mine

LET’S DISCUSS



How do you use your mouse so your player can look around?

What are two keyboard controls to move your player?

Do you like using mouse or keyboard controls better?

What’s one thing you discovered while playing?

LET’S TALK CODING

Code or a computer program gives instructions to a computer to do something.

A computer can be a laptop, tablet, smart phone, TV, robot, and more.

If you were going to code a computer to make an egg and tomato dish, you’d break down the task into specific steps in a specific order, which is an algorithm.

A CODING MINDSET

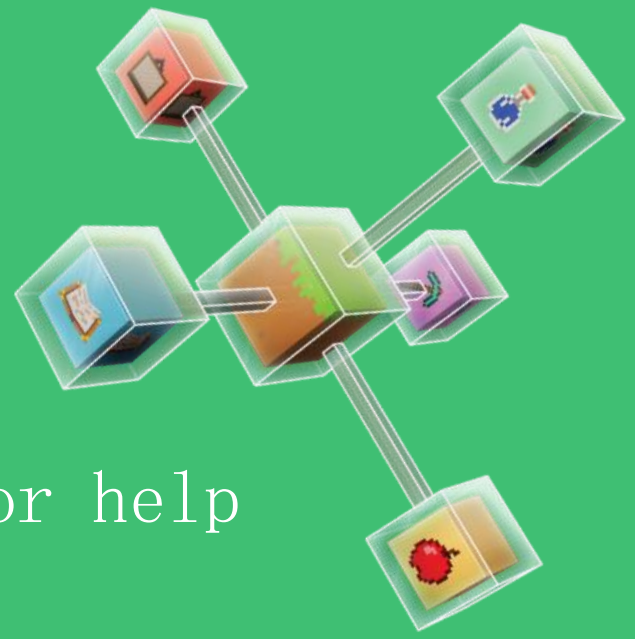
Learning something new can be hard

Be curious if you get frustrated

Be persistent and keep trying

After you try to figure it out, ask others for help

Learn from mistakes

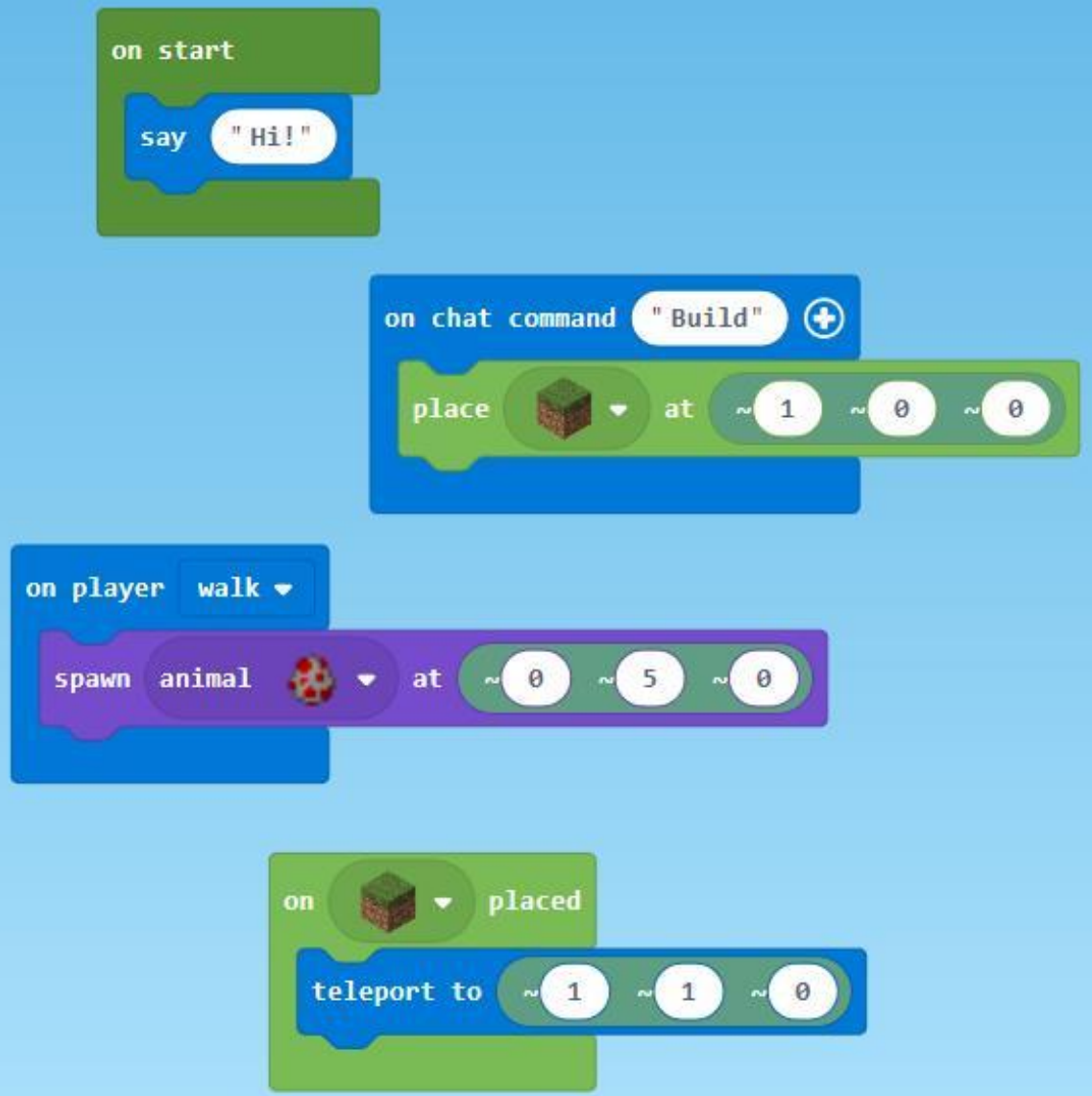


CODING WITH MICROSOFT MAKECODE

Part of the Code Connection app

Code in blocks or JavaScript

Let’s try it out!



ACCESS MAKECODE

Press “C”

1

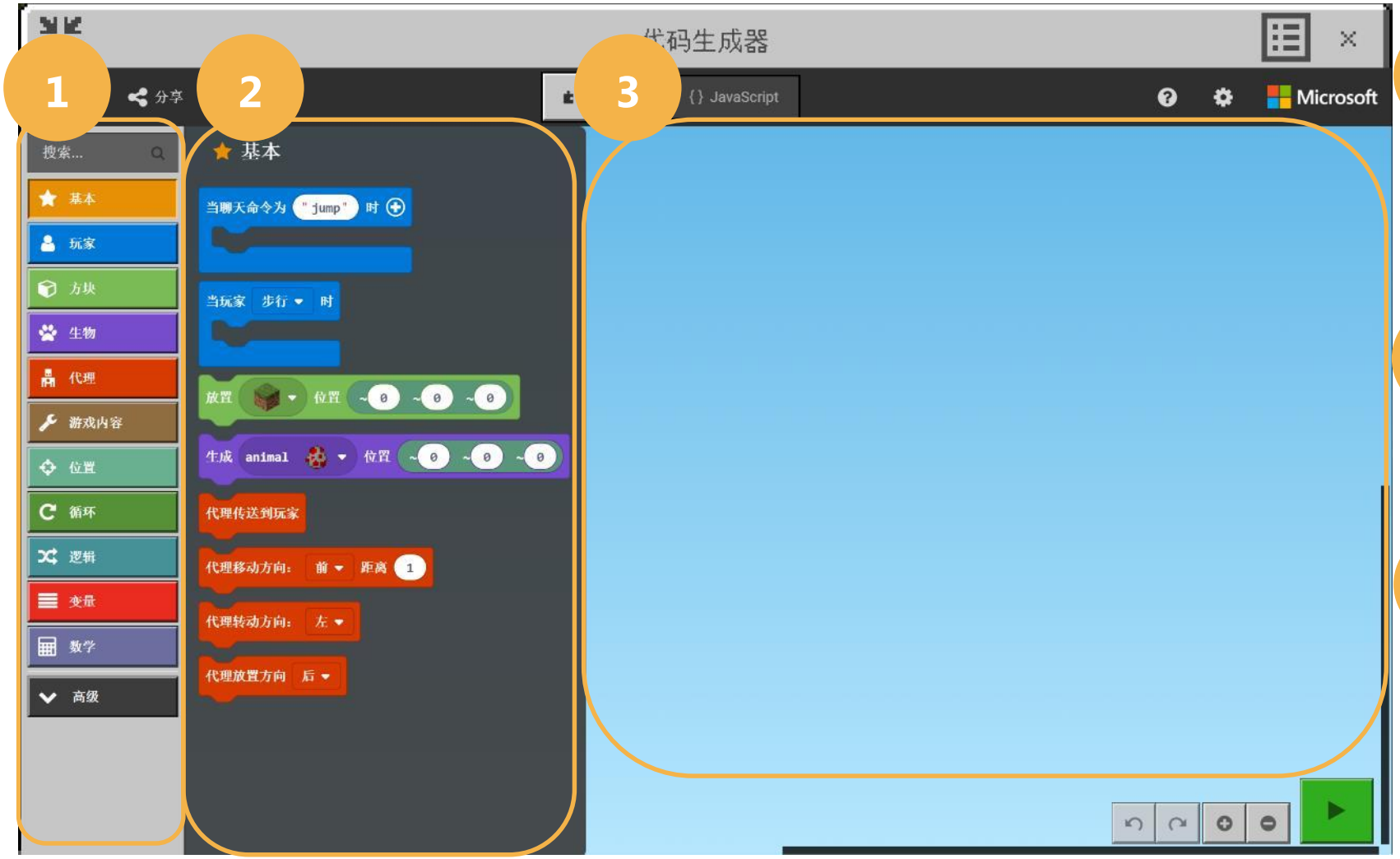
Click on Microsoft MakeCode

ACCESS MAKECODE

1

Click on “New Project”

MAKECODE INTERFACE



1

Coding Workspace – Where you work with different coding blocks.

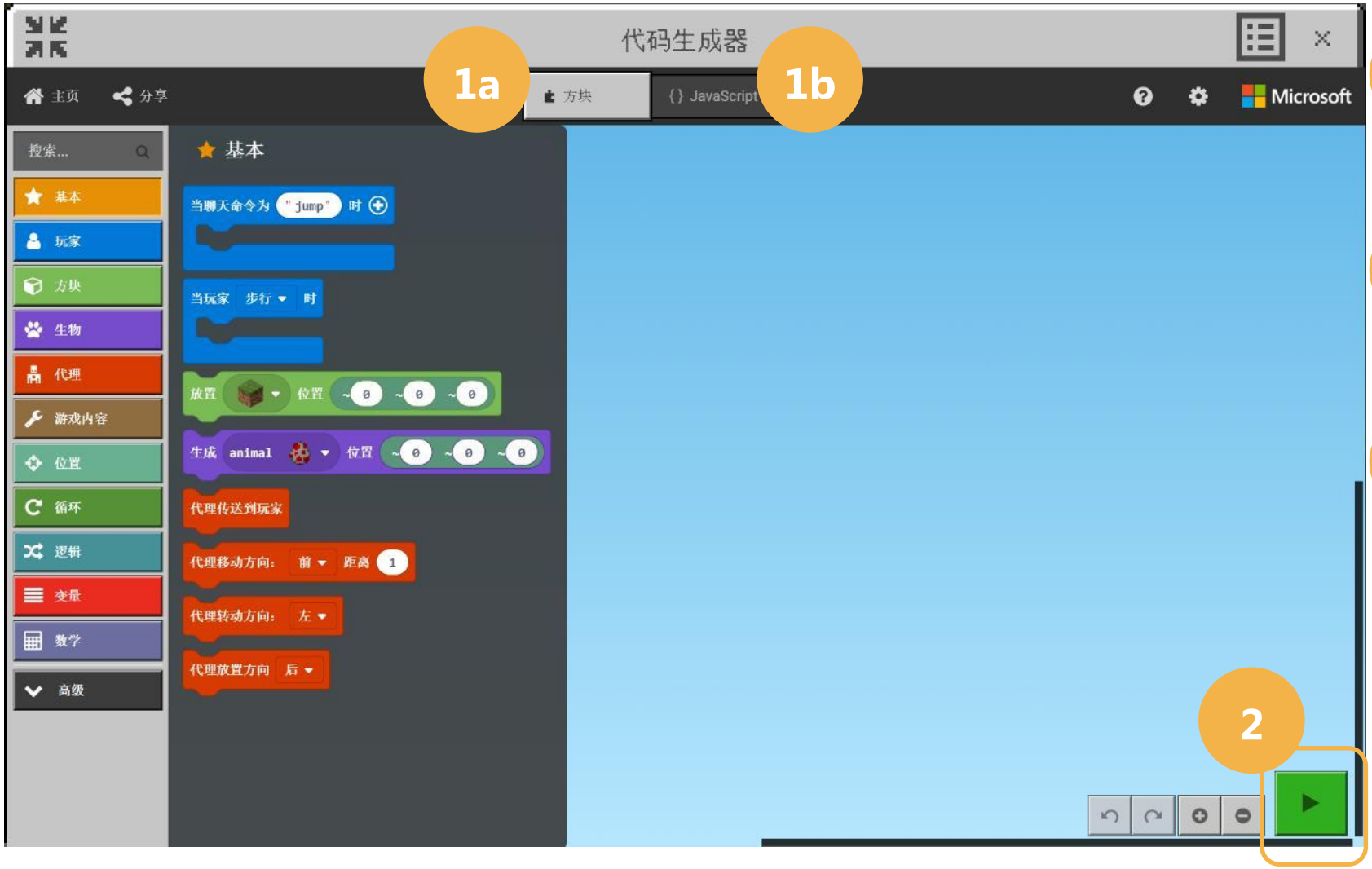
2

Tool box – Where you find different types of code blocks.

3

Tool drawer – When you select a drawer it opens to show the available coding blocks. Point out that the coding blocks in each drawer are color coded for those types of blocks.

MAKECODE INTERFACE



1a

Block coding

1b

Java script

2

When you are done coding, press ▶ to play the code in game

Include a walkthrough video about makecode (just like on the website)

CODING WITH CHAT COMMANDS

The PLAYER drawer has coding blocks that work in direct response to your actions

on chat command

An runs code when you type the command in the chat field of Minecraft

LET’S MEET YOUR AGENT

It’s a Non-Player Character (NPC) assistant in the game to help you do things, like build, farm, and much more.

It appears when you teleport it to your player.

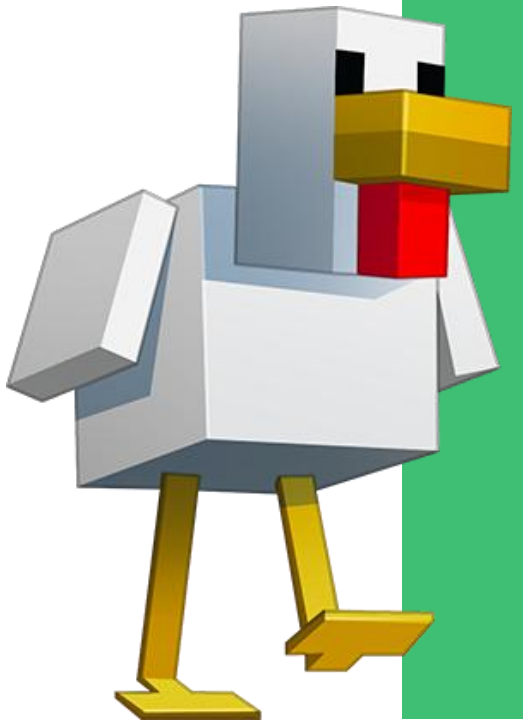
The **AGENT** drawer has coding blocks relating to it.

LET’S DISCUSS

What are the four main keyboard controls for moving your player around?

What does it mean if a block in the coding Workspace is opaque?

LET’S DISCUSS



How do you open the chat field?

How do you close the chat field?

What’s an `on chat command` ?

How do you get to the coding Workspace?

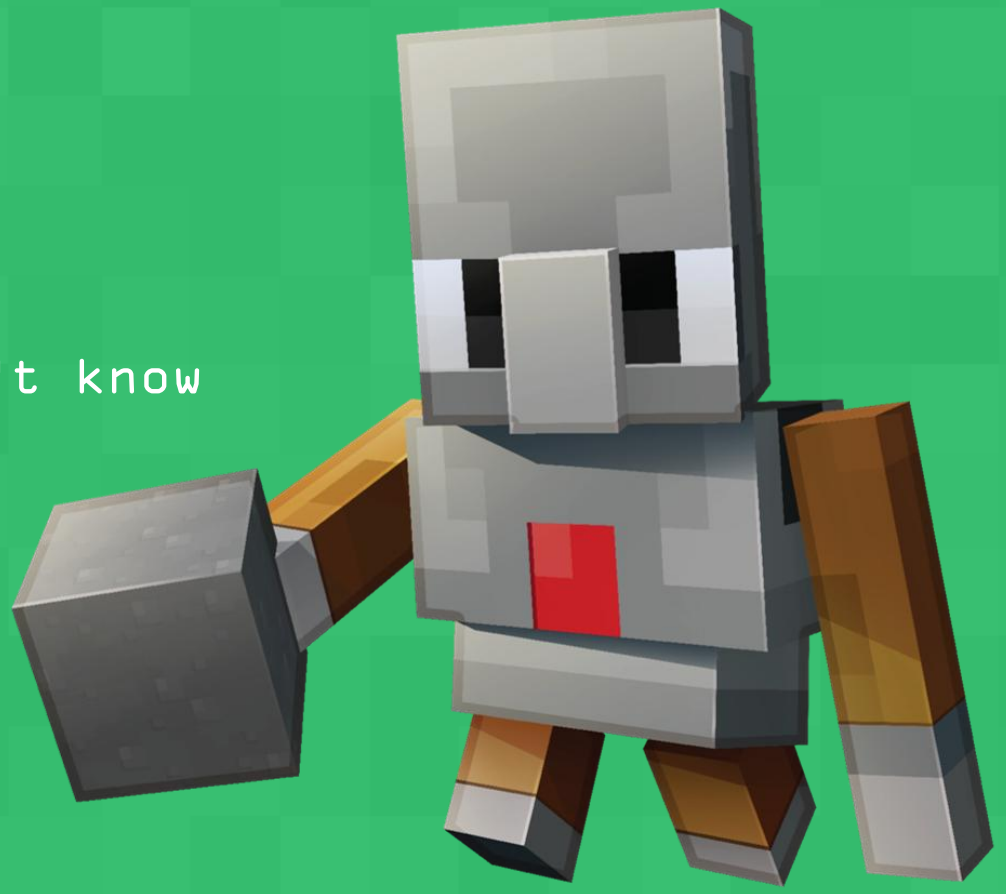
Lesson A

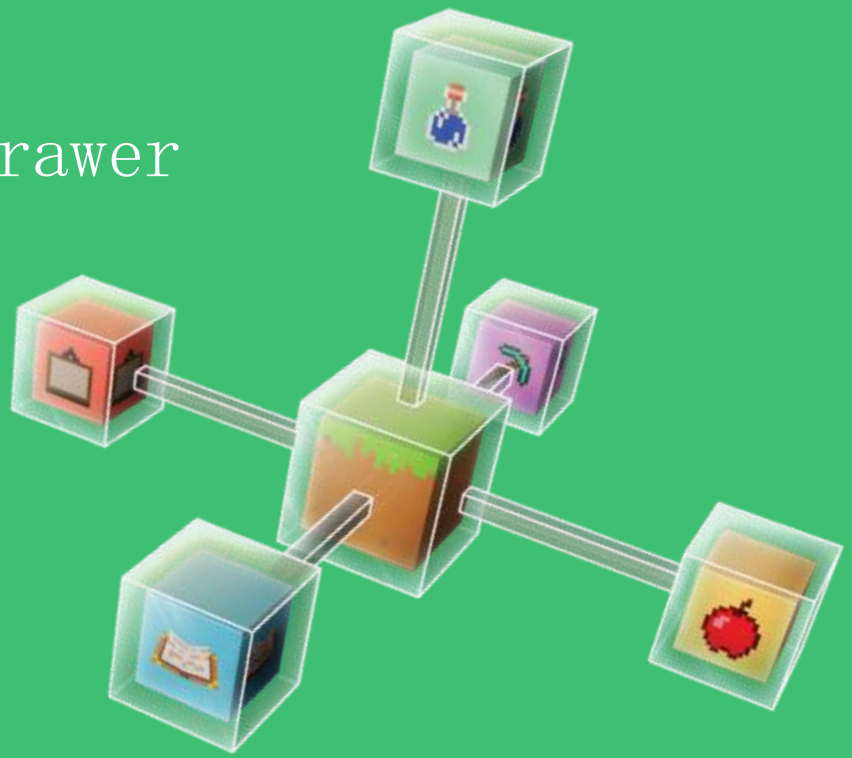
Let’s review

What did you learn today that you didn't know before?

What was most challenging?

What questions do you have?



NEXT TIME

Code with other blocks in the **AGENT** drawer