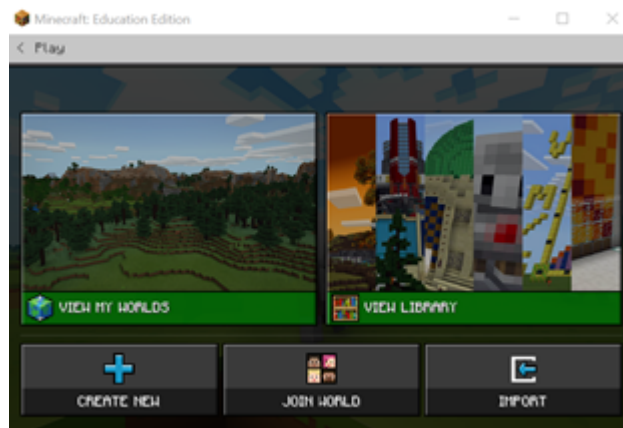# Contents

Redstone Basics

Opening a template called **Blocks of Grass**

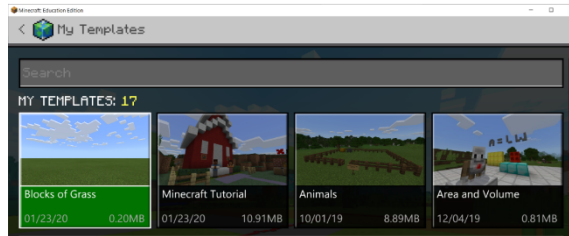1. Select **Play** from **Menu Screen**.

2. Play window opens. Select **Create New**.
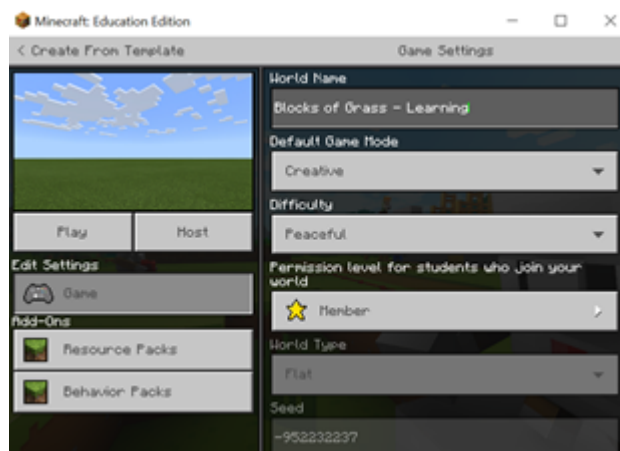
3. Select **Templates**.

4. Search and select **Blocks of Grass World.**

5. In World Name field type "**My First Blocks**".

Game Mode Settings – The template is in creative. There are three game modes listed here for more information.

Adventure Mode is a restricted mode primarily for completing learning experiences without the ability to place or destroy blocks. Players can only move and interact with levers, buttons, and other similar items.

Creative Mode gives players unlimited inventory of every block in Minecraft, along with the removal of core game mechanics like hunger and health. You do not get hungry, you do not lose health, and you can also fly for quicker transit around a world.
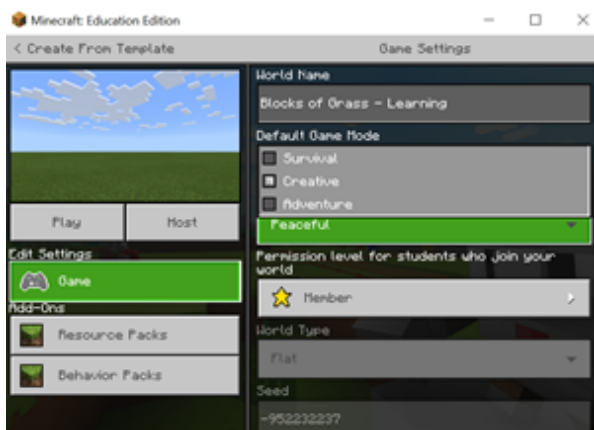
Survival Mode is the game mode most students are familiar with from personal use, where players must seek out raw materials and use them to craft and survive. Players will get hungry and need to eat, and they will take damage from both drowning, falling, fire, and hostile mobs. It is possible to play in Survival Mode and still limit the inventory of players while also removing mobs from the game (more on this below).

Difficulty Settings – There are four difficulty settings: Peaceful, Easy, Normal and Hard. The Peaceful Mode is selected in the template below.
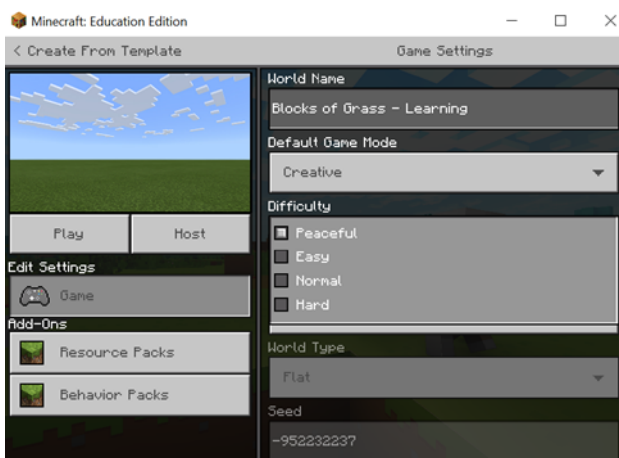
Peaceful difficulty is often used in combination with Survival Mode.

In this difficulty setting, health and hunger will regenerate so it is difficult, but not impossible, to lose your health and die. Hostile mobs will also not appear in the world nor can they be summoned by players.

Easy, medium, and hard difficulty settings mainly control the aggressiveness of hostile mobs
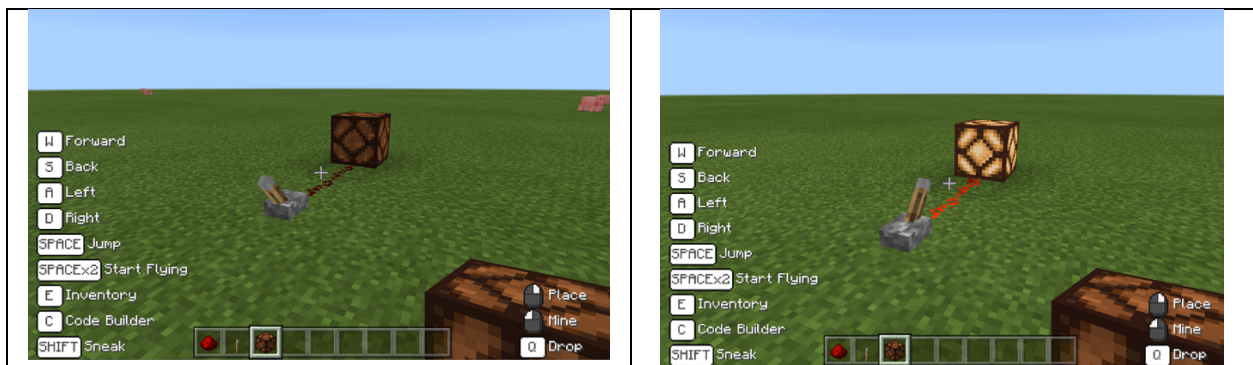
6. Select **Play**.

7. In the next window we are ready to build a **Redstone Lamp**!

Learn: Redstone Lamp Inventory

Let us learn how to build our first item using **Redstone**.

Inventory- Before we can build the lamp, we need to add blocks from the inventory to our **hotbar** which contains the 9 boxes at the bottom of our game screen.

1. Access the inventory by pressing the (**E**) key on the keyboard.
   Tip: to remember how to access the inventory, think **"E"** for "**Everything**."

Apply:

1. Press "**E**" for the inventory.
2. Type in "**Redstone**".

3. Select by left clicking on the Redstone block, dragging it down to the 1st box of the hotbar, and then left clicking again to drop block in hotbar.
4. Go back up to the inventory and select the **Redstone Lamp**.

5. Select by left clicking on the block, dragging down to the 2nd box of the hotbar, and then left clicking again to drop block in hotbar.
6. Go back up to the inventory type in **lever.**

7. Select by left clicking on the block, dragging down to the 3rd box of the hotbar, and then left clicking again to drop block in hotbar.
8. Select the "**x**" on the top right to return to the game screen.

Learn: Building the Redstone Lamp

Now that we have our Redstone Inventory, we can build the **lamp**.
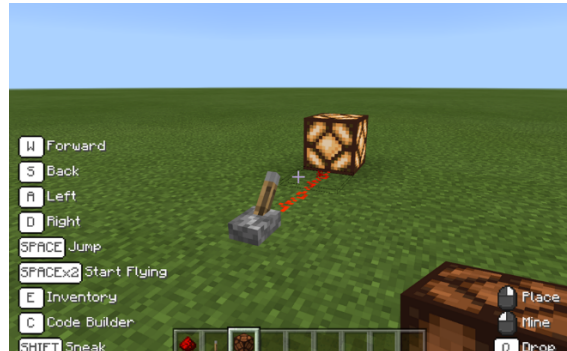

Apply:

1. Select **2** on the keyboard or use the mouse wheel to select the 2nd slot on the hotbar – the **lever**.

2. The lever is now in the avatar's hand.
3. Point the crosshair (+) down to the grass. **Note**: the mouse icon now appears with the words "**Place**" for the right click.
4. Right Click to "**Place**" the Lever on the ground so it is vertical facing you.
5. Select **1** on the keyboard or use the mouse wheel to select the 1st slot on the hotbar – **Redstone dust.**

6. Point the crosshair (+) down to the edge of the lever.
7. Right Click to "**Place**" the Redstone dust on the ground in a line toward you.
8. Repeat 3 more times to form a "wire leading out from the lever.
9. Select **3** on the keyboard or use the mouse wheel to select the 3rd slot on the hotbar – **Redstone lamp.**
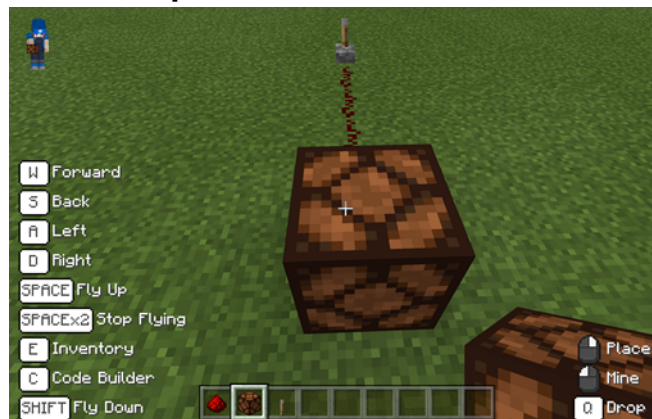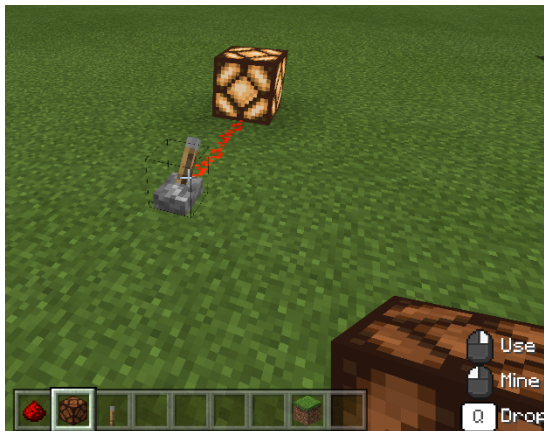

10. Point the crosshair (+) down to the edge of the lever.
11. Right click to "**Place**" the Redstone lamp on the ground at the end of the "wire."
12. Walk around to where you placed the lever.

13. Point the crosshair (+) to the lever. **Note**: the mouse icon now appears with the words "**Use**" for the right click.

14. Right click to "**Use**" the lever to turn **on** the Redstone Lamp.

15. Right click again, to turn **off** the Redstone Lamp.

Practice Redstone Skills

Learn: *Use the skills-* you have just learned to experiment with different patterns of Redstone dust on the ground. Use the previously learned skills using Minecraft: Education Edition to see if you can add lighting to another build using Redstone.

Tips to Remember as you practice:

1. The avatar builds with what is in your hand. Change what is in your hand by using the numbers on the keyboard or the wheel on the mouse.
2. Look at the **Screen menu** to remind you how to move.
3. Wherever the crosshair (+) is, the block will be placed or mined.
4. Look at the mouse icon on the right corner of the screen to help you **Place and Mine**. The left click is the **Mine** and the right click is the **Place**.
5. Press **"E"** on the keyboard to go get more Inventory to drop in the hotbar.
6. If the hotbar is full, go back to the inventory, drag an item out of the hotbar back into the inventory. *It does not matter where you drag it to, just drag it up to the inventory box and it will disappear. This leaves an open space in the hotbar for new items to be placed.