

MINECRAFT EDUCATION

THE FIRST NIGHT



EDUCATOR GUIDE

TARGET AUDIENCE

Ages 8-18

OVERVIEW

Students will experience a classic first-night survival challenge with an AI learning simulation. They will collaborate with an in-game Agent, guiding and supporting its behavior through programming. Students will help the Agent learn from examples, make inferences, generalize, and provide human oversight when mistakes are made.

ESSENTIAL QUESTION

How can fundamental AI concepts help us code the Agent (and mini-agents) to plan and execute tasks?

MATERIALS NEEDED

- Computers with Minecraft Education installed
- Projector to introduce artificial intelligence and set the scene

LESSON DURATION

1 Class Period (45-60 minutes)

LEARNING OBJECTIVES

Students will:

- Learn about different types of AI
- Utilize computational thinking to capture rules and relationships that govern AI behavior
- Practice training and verifying AI outputs
- Experience how to leverage learned knowledge across tasks to become empowered collaborators

KEY VOCABULARY

Artificial Intelligence: a computer that has the ability to copy human-like actions such as learning new things and solving problems

Classification: defining categories (AI learns to classify data into a defined group)

Pattern recognition: Generalizing from examples (AI recognizes a new pattern on its own)

Orchestration: parallel task solving (AI coordinates any agents for efficiency)

Human-in-the-loop: supervision (AI needs human oversight and corrections to catch errors and refine rules)

Transfer learning: applying learned knowledge to a new task (AI uses prior lessons to handle new situations)



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INTRODUCTION

Artificial intelligence is already changing how we learn, work, and live. Yet right now, many students are on the sidelines — using AI without understanding how it works, how to use it responsibly, or how to shape what’s coming next.

This year’s Hour of AI experience invites all learners of all ages to Minecraft Education’s ***The First Night***, a compelling story of transformation and collaboration that doubles as a blueprint for AI literacy through play.

It takes the chaos of a first Minecraft night, an experience every veteran player remembers, and uses it as the canvas for teaching how an AI thinks, learns, and sometimes errs, all without losing the magic of Minecraft. By the end of the session, a student will have gone from panicked survivor to confident teacher, and their AI Agent from a clueless newbie to an autonomous partner.

This journey encapsulates why understanding AI is important (you see its power and its pitfalls) through Minecraft’s ethos of creativity, problem-solving, and fun.

Instead of surviving alone, players partner with an AI Agent and teach it how to endure the night, turning a familiar Minecraft scenario into a hands-on exploration of artificial intelligence.

In short, ***The First Night*** fulfills the dual mandate of delighting players and teaching them something real. It highlights Minecraft not just keeping pace with the future but actively shaping how a new generation engages with technology, all while fully enjoying (and for some, experiencing for the first time) the core Minecraft experience of surviving the night.

The first night ends—but the future of AI education begins here.

QUICK LESSON OVERVIEW

Lesson Goal	Students will use fundamental AI concepts (classification, pattern recognition, verification, error detection) to code the Agent (and mini-agents) to plan and execute tasks to survive a night in Minecraft.
Core Concepts	• AI Literacy domains: Pattern recognition, generalization, inference, error detection, and correction experienced through gameplay. • Computational Thinking: Students use code, debugging, algorithms and problem-solving to capture rules and relationships that govern Agent behavior, building foundations for working with intelligent systems. • AI Mindset: Critical Thinking & Responsible Use - Learners practice evaluating outputs, deciding when to use AI (and when not to), and correcting mistakes. • Coding Skills: Shifts coding from just “writing instructions” to teaching, guiding, and collaborating with AI—skills applicable whether using ChatGPT today or advanced systems tomorrow. • Confidence and Creativity: Students experience how capability grows, from initial dependence to empowered collaboration, and how knowledge transfers across tasks.
Lesson Structure	The learning experience is divided into six critical steps within the in-game experience: • Collect wood. • Make tools. • Build a shelter. • Craft a door. • Add light. • Make a bed. The player will use code to help train the Agent to complete these tasks using specific AI literacy concepts. By completing these specific tasks, players will be able to survive the first night.
Teaching Flow	1. Pre-Lesson Setup 2. Lesson Delivery 3. Post-Lesson Reflection

CURRICULUM CONNECTIONS

CSTA Standards (current)	1B-IC-18 Discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices. 2-IC-20 Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. 2-IC-21 Discuss issues of bias and accessibility in the design of existing technologies. 3A-IC-24 Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.
CSTA Standards (2026)	Foundational Content – Emerging Technologies E2-CAS-ET-02. Hypothesize ways that new or improved technologies can solve a problem. E3-CAS-ET-02. Evaluate how people make choices about the use of emerging technologies, based on their needs and the consequences. E4-CAS-ET-02. Investigate intended and unintended consequences related to emerging technologies. E5-CAS-ET-02. Analyze the limitations of existing technologies and how emerging technologies change the way people work, behave, and communicate. MS-CAS-ET-06. Describe ways that emerging technologies have influenced the development of new solutions or transformed existing processes across society and the environment. HS-CAS-ET-05. Explain how the computing principles underlying emerging technologies are being used in innovative ways.
ISTE	1.1.d Technology Fundamentals Students understand fundamental concepts of how technology works, demonstrate the ability to choose and use current technologies effectively, and are adept at thoughtfully exploring emerging technologies.
AI4K12	5-A-I Evaluate how an AI technology can have different effects on different groups of people. (3-5) 5-B-I Examine an aspect of daily life that is predicted to change due to the introduction of AI technologies. (6-8) 3-A-III Train a classification model using machine learning, and then examine the accuracy of the model on new inputs. (3-5) 3-A-III Train and evaluate a classification or prediction model using machine learning on a tabular dataset. (3-5) 3-A-IV Demonstrate how training data are labeled when using a machine learning tool. (3-5) 3-A-IV Explain the difference between training and using a reasoning model. (6-8)

PREPARING FOR THE LESSON

GETTING STARTED - MINECRAFT EDUCATION

Minecraft Education offers a unique learning platform where students can engage in creative builds and various game elements. And, we have the Hour of AI as easy as 1, 2, 3 for you to get started.

Here's how to get setup:

1. Go to [Minecraft Hour of AI](#) to download and install Minecraft Education.
2. If you do not have a valid O365 EDU account, [you can still try a free demo](#) on Windows, Mac or iPad.
3. Review the [lesson plan and resources](#) to begin the Hour of AI!

Once you are set-up with Minecraft Education, you should:

- Learn about [Hour of AI 2025: The First Night](#)
- Use this Educator Guide, [Classroom Presentation](#), and [Solutions Guide](#) to help you prepare for your own Hour of AI 2025 experience.
- Play through the Hour of AI 2025: The First Night game to get more familiar with the game play!



PRE-LESSON ACTIVITIES

A CLASS PRESENTATION WITH THESE LESSON ACTIVITIES CAN BE FOUND HERE AND UTILIZED WITH STUDENTS.

SETTING THE SCENE

Play the [Hour of AI Introduction video](#) for students.

Explain to students that they are going to have an opportunity to experience a classic first-night survival challenge with an AI learning simulation. They will collaborate with an in-game Agent, guiding and supporting its behavior through programming. Students will help the Agent learn from examples, make inferences, generalize, and provide human oversight when mistakes are made.



ESSENTIAL QUESTION AND THEME

Introduce the essential question:

How can fundamental AI concepts help us code the Agent (and mini-agents) to plan and execute tasks?

ACTIVITY DISCUSSION

- What do you think a robot (or AI) can learn to do?
- Have you ever used a computer or smart device?
- What is one thing you would like to train an AI to complete for you?

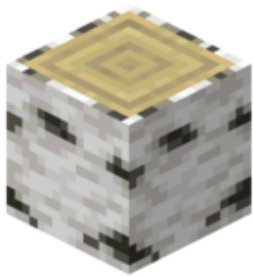
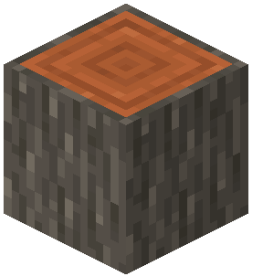
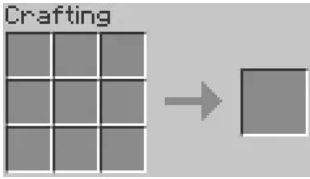
VOCABULARY REVIEW

Introduce the key terms (found on Slide 4 of the classroom presentation).

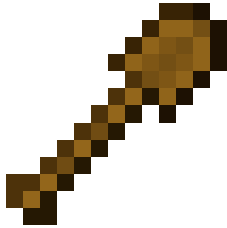
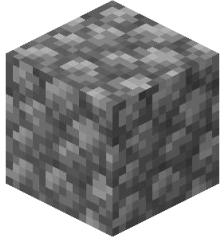
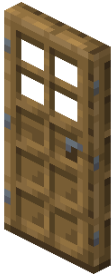
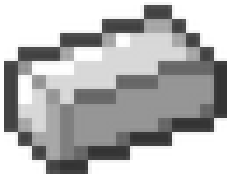
- Artificial Intelligence
- Classification
- Pattern recognition
- Orchestration
- Human-in-the-loop

Emphasize that they will see these concepts in action during game play.

MINECRAFT VISUAL GLOSSARY

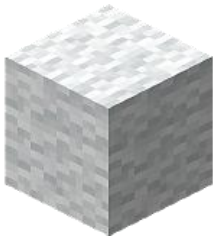
Hotbar 	Agent 	Book 
Oak log 	Birch log 	Acacia log 
Planks 	Inventory 	Crafting Grid 
Crafting Table 	Sticks 	Wooden Axe 

MINECRAFT VISUAL GLOSSARY

Wooden Shovel 	Wooden Pickaxe 	Cobblestone 
Stone Axe 	Stone Shovel 	Stone Pickaxe 
Oak Door 	Torch 	Coal 
Iron 	Furnace 	Iron Ingots 



MINECRAFT VISUAL GLOSSARY

Shears 	Sheep 	Wool 
Bed 		



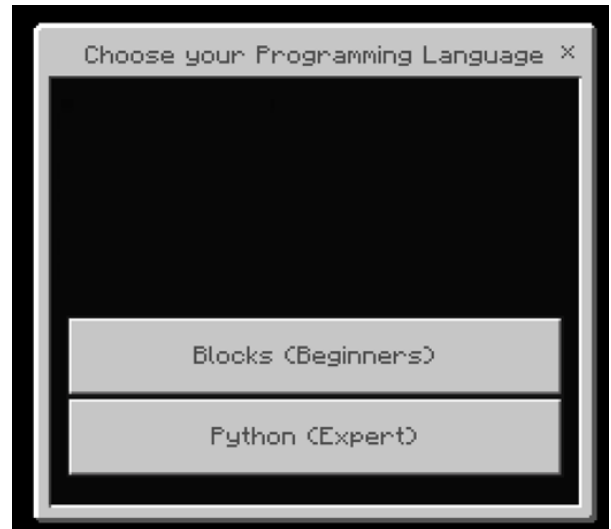
BEGINNING GAME PLAY

HOUR OF AI: THE FIRST NIGHT

BEGINNING GAME PLAY

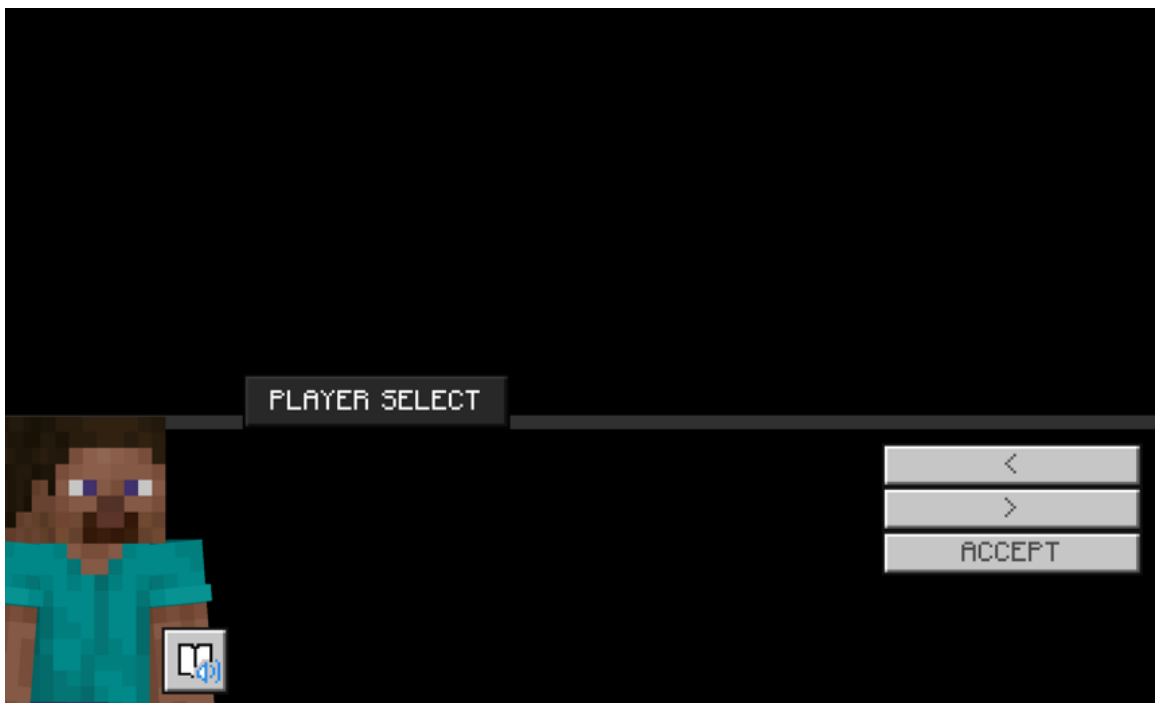
The students will be prompted to pick their programming language: Blocks or Python.

NOTE: Blocks are best for beginners. Python should only be selected if a player has coded in it previously. *Once a player selects a programming language, they are unable to change their selection for the remainder of the game.*



SELECT YOUR SKIN

Players will then select their skin – in Minecraft, a skin is an image that determines what your character looks like in the game. They can choose from any of the available skins by using the < and > buttons to scroll through the options. When they have made their decision on a skin, they can select the "Accept" button.



HOW DO I GET THROUGH THE FIRST NIGHT?

In this Hour of AI experience, there are specific tasks that need to be completed for a player to survive through the night.

- Collect wood.
- Make tools.
- Build a shelter.
- Craft a door.
- Add light.
- Make a bed.

WHY IS THIS IMPORTANT?

During nighttime, mobs appear in the world. **Mobs** are entities that resemble different creatures, such as zombies and skeletons.

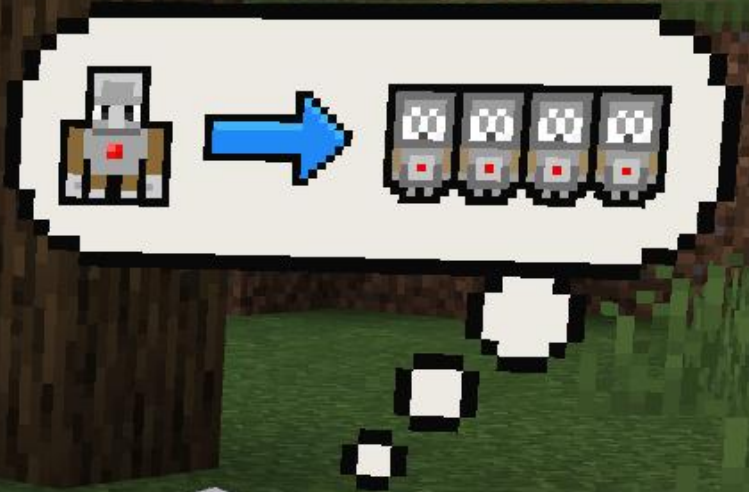


HOW WILL I KNOW WHAT TO USE?

In your hotbar, players will receive a book, "Player's Guide to the First Night in Minecraft". This book will contain all relevant information needed to craft necessary items for survival.



COLLECT WOOD



HOW DO I BUILD A SHELTER?

COLLECT WOOD

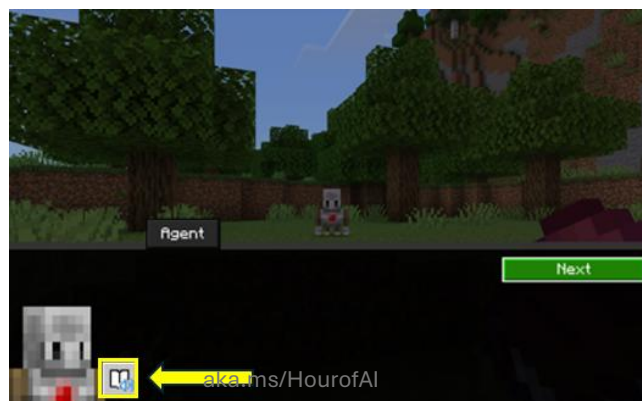
Students will spawn into their Minecraft world. They will be instructed to collect wood as their first task.



As they approach the nearby trees, the in-game Agent will automatically appear, and a dialog box will pop up on their screen. The Agent is an AI player. AI is short for **artificial intelligence**. The Agent is a computer that has the ability to copy human-like actions such as learning new things and solving problems.



Throughout the game, players will see dialog boxes (shown below). This will have important information and/or directions for the player. **Encourage players to read carefully.** The highlighted icon below opens Immersive reader.



HOW DO I BUILD A SHELTER?

COLLECT WOOD - CONTINUED

Students will need to train the Agent how to complete tasks first. One of the ways the Agent learns is through classification. **Classification** is sorting data into groups.



The Agent needs to classify which blocks are wood.

CODING SOLUTION	
Blocks	Python
	<pre>api_url = 'minecraft://agent.ai/' api_endpoint = 'classify' api_key = 'MC-KEY-821-597' training_data = { 'wood': 'oak_log' } ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

After the Agent learns to classify wood, the Agent will deploy the mini-Agents to collect more wood for the players.



HOW DO I BUILD A SHELTER?

COLLECT WOOD - CONTINUED

Oak logs are not the only type of wood. The Agent will also need to be trained that birch is also a type of wood! Now, the Agent will be able to create two groups: "wood" and "not wood". This is called **binary classification**.



CODING SOLUTION

Blocks	Python
	<pre>api_url = 'minecraft://agent.ai/' api_endpoint = 'classify' api_key = 'MC-KEY-821-597' training_data = { 'wood': 'oak_log', 'wood2': 'birch_log' } ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

After the Agent learns to classify both oak and birch as types of wood, the Agent will deploy the mini-Agents to collect more wood for the players. The Agent will also start to look for patterns. Using classification, the Agent will notice that there is also acacia logs nearby.

CODING SOLUTION

Blocks	Python
	<pre>api_url = 'minecraft://agent.ai/' api_endpoint = 'classify' api_key = 'MC-KEY-821-597' training_data = { 'wood': 'oak_log', 'wood2': 'birch_log', 'wood3': 'acacia_log' } ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

MAKE TOOLS



HOW DO I BUILD A SHELTER?

MAKE TOOLS

Next, students will start on their second step – making tools. They will need to build a crafting table.



A **crafting table** is an item that allows players to access a 3x3 crafting grid, enabling the creation of a wide variety of items and blocks. To build a crafting table, players will need wood planks. You can make wood planks out of logs.

Open your inventory.



Craft wood planks.



Use the wood logs to make a crafting table.



Place the crafting table into your hotbar.

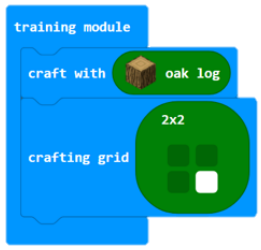


HOW DO I BUILD A SHELTER?

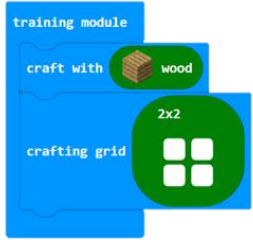
STEP 2: MAKE TOOLS - CONTINUED

Now, students will need to train their Agent on how to make wood planks.

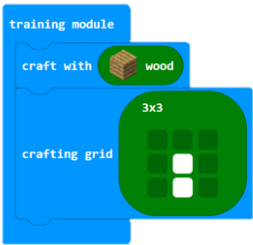


CODING SOLUTION	
Blocks	Python
	<pre># crafting pattern wood_planks = ''' 00 00 ''' # add additional code below api_url = 'minecraft://agent.ai/' api_endpoint = 'crafting' api_key = 'MC-KEY-821-597' training_data = { 'crafting': wood_planks } ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

The Agent has learned how to make a crafting table by watching the player. Regardless, it is important to always **verify** the work on an AI to ensure they do not have the wrong information.

CODING SOLUTION	
Blocks	Python
	<pre># crafting pattern wood_planks = ''' BB BB ''' # add additional code below api_url = 'minecraft://agent.ai/' api_endpoint = 'crafting' api_key = 'MC-KEY-821-597' training_data = { 'crafting': crafting_bench } ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

Use the crafting table to make wood tools. Wood tools are made up of planks and sticks. Train your Agent on how to craft sticks.

CODING SOLUTION	
Blocks	Python
	<pre># crafting patterns crafting_bench = ''' BB BB ''' sticks = ''' 000 0B0 0B0 ''' # connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'crafting' api_key = 'MC-KEY-821-597' # training data training_data = { 'crafting': crafting_bench, 'crafting2': sticks } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>



Now that you have planks and sticks, you can make the wooden tools: wooden axe, wooden shovel, and wooden pickaxe. Players will need to make the tools first to show the Agent what they are. Then, the tools need to be placed into their hotbar.



HOW DO I BUILD A SHELTER?

STEP 2: MAKE TOOLS - CONTINUED

By following our steps, the Agent have identified a structured process for crafting tools. Verify the Agent's work.



CODING SOLUTION	
Blocks	Python
training module craft with  wood craft with  stick crafting grid  crafting grid  crafting grid 	<pre># crafting patterns axe = ''' BBO BBO OBO ''' pickaxe = ''' BBB OBO OBO ''' shovel = ''' OBO OBO OBO ''' # connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'crafting' api_key = 'MC-KEY-821-597' # training data training_data = { 'crafting': axe, 'crafting2': pickaxe, 'crafting3': shovel } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

HOW DO I BUILD A SHELTER?

UPGRADE YOUR TOOLS

Player are encouraged to upgrade their tools from wood tools to stone tools. Stone tools are stronger and can break more materials. You will need to collect stone to showcase the material to train the Agent.



Now that the Agent has more than just wood to label, the Agent will use **multiclass classification** – sorting things into three or more groups.



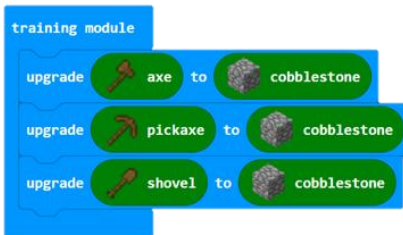
Now that you have stone, you can upgrade your tools. Craft a stone axe, stone shovel, and stone pickaxe. Place them into your hotbar.



HOW DO I BUILD A SHELTER?

UPGRADE YOUR TOOLS - CONTINUED

Verify how to upgrade your tools with the Agent.

CODING SOLUTION	
Blocks	Python
 <pre>training module upgrade [axe] to [cobblestone] upgrade [pickaxe] to [cobblestone] upgrade [shovel] to [cobblestone]</pre>	<pre># connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'upgrade' api_key = 'MC-KEY-821-597' # training data training_data = { 'axe': 'cobblestone', 'pickaxe': 'cobblestone', 'shovel': 'cobblestone' } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>





BUILD A SHELTER

HOW DO I BUILD A SHELTER?

BUILD A SHELTER

It is time to start building the shelter.



The Agent will need to be trained to utilize cobblestone and wood as building materials for the shelter. Then, have the Agent build a shelter for you.

CODING SOLUTION

Blocks	Python
A blue 'training module' block contains two 'building material' blocks. The first 'building material' block has a cobblestone icon and the text 'cobblestone'. The second 'building material' block has a wood icon and the text 'wood'.	<pre># connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'classify' api_key = 'MC-KEY-821-597' # training data training_data = { 'building_materials': 'cobblestone', 'building_materials2': 'wood' } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>



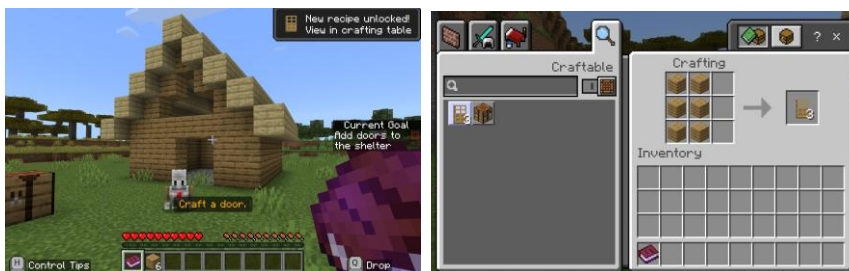
CRAFT A DOOR



CRAFT A DOOR

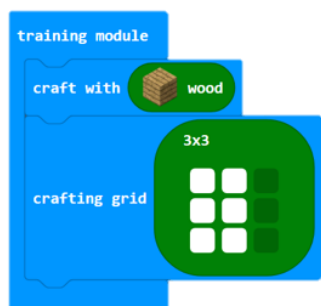
Unfortunately, the shelter has no door!

The player will need to **verify** for the Agent that shelters must have doors.
Now, the player will need to craft a door to train the Agent. Move the doors to your hotbar.



CODING SOLUTION

Blocks



Python

```
# crafting pattern
door = ''
BB0
BB0
BB0
''

# connection variables
api_url = 'minecraft://agent.ai/'
api_endpoint = 'crafting'
api_key = 'MC-KEY-821-597'

# training data
training_data = {
    'crafting': door
}

# API request
ai.make_api_request(
    api_url,
    api_key,
    api_endpoint,
    training_data
)
```

Have the Agent place the doors on the shelter for you.



ADD LIGHT

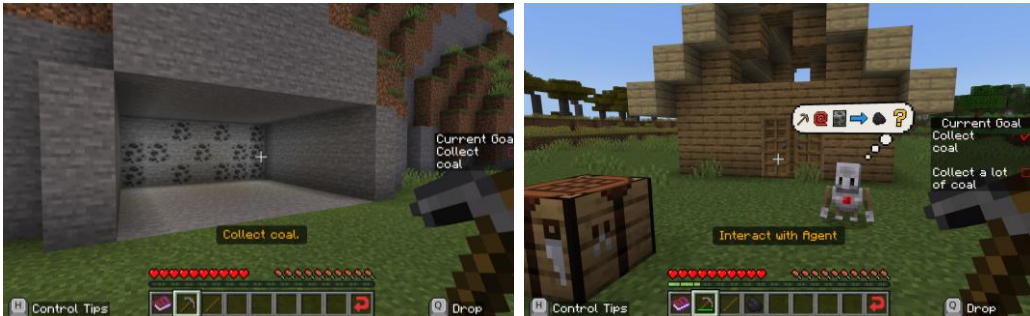


HOW DO I LIGHT UP A ROOM?

MAKE A TORCH

The night is drawing closer! A torch will be useful... A torch provides light and is good at keeping mobs away. Torches can be made from sticks and coal.

Coal is an ore. You mine for it by digging into stone. Coal is flammable, so it burns. Coal is a new material for the Agent to classify. Collect a coal ore for the Agent.



CODING SOLUTION

Blocks	Python
	<pre># connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'classify' api_key = 'MC-KEY-821-597' # add training data training_data = { 'ore': 'coal_ore' } # add API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

Then have the Agent deploy the mini-Agents to collect more coal for you.



HOW DO I LIGHT UP A ROOM?

CRAFT MORE TORCHES

Show the Agent how to craft torches for you.



Place the torches in your hotbar.



Train the Agent on how to craft torches for you.

CODING SOLUTION	
Blocks	Python
<pre> training module craft with coal craft with stick crafting grid 3x3 </pre>	<pre> # crafting patterns torches = '' 000 0B0 0B0 ... # connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'crafting' api_key = 'MC-KEY-821-597' # training data training_data = { 'crafting': torches } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data) </pre>

HOW DO I LIGHT UP A ROOM?

PLACE THE TORCH



With the extensive training, the Agent has started “thinking”. The Agent is an **adaptive AI** – that means the Agent can learn and improve when there are changes to the data, and the Agent can do it on their own without any help!

The Agent is also a proactive AI – they can predict your needs and performs tasks to help you.

The Agent has been proactive in predicting that you would need help lighting the shelter. They have adapted to the new task and have a plan to place the torches.



MAKE A BED



HOW DO I MAKE A BED?

THE SUN IS GETTING LOW...

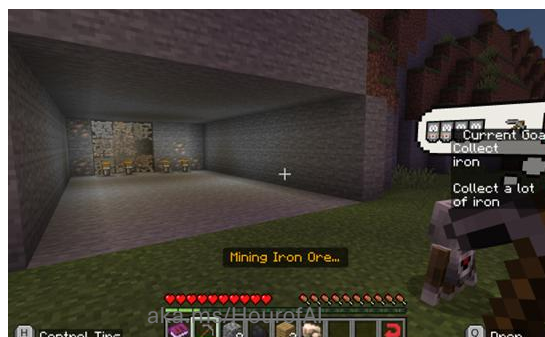
In order to get through the night, the player will need a bed. To make a bed, you will need wool. To get wool, you will need shears – that means we need to mine iron. Mine a sample of iron for the Agent.



Then train the Agent to classify iron as ore.

CODING SOLUTION	
Blocks	Python
	<pre># connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'classify' api_key = 'MC-KEY-821-597' # training data training_data = { 'ore': 'coal_ore', 'ore2': 'iron_ore' } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

Then have the Agent deploy the mini-Agents to collect more iron for you.



HOW DO I MAKE A BED?

CRAFT THE FURNACE

Smelting is how you get the iron out of the ore. You need to heat up the ore until it melts, creating iron ingots that you can use to craft tools. To smelt, you need to create a furnace! Teach the Agent how to make a furnace.



Train the Agent how to craft a furnace.

CODING SOLUTION	
Blocks	Python
training module craft with  cobblestone crafting grid 	<pre># crafting patterns furnace = ''' BBB BOB BBB ''' # connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'crafting' api_key = 'MC-KEY-821-597' # training data training_data = { 'crafting': furnace } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

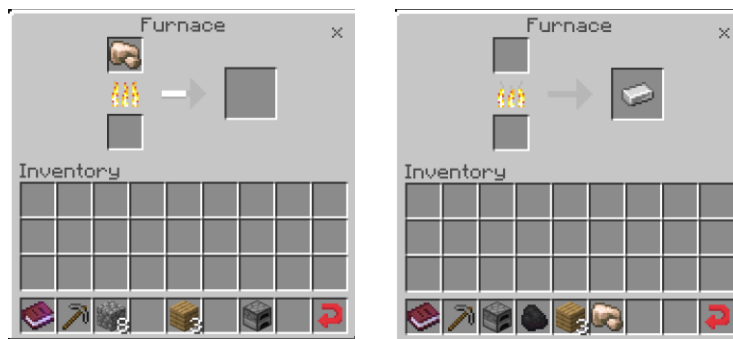
Then, have the Agent craft more furnaces for you.

HOW DO I MAKE A BED?

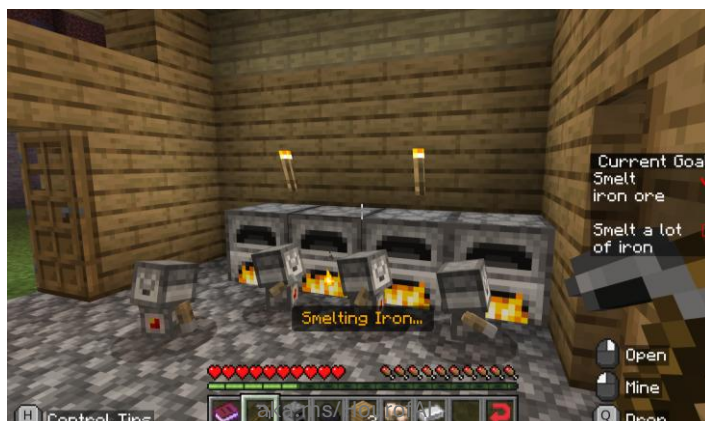
USE THE FURNACE



Place the raw iron into the top slot and your coal on the bottom slot to melt the raw iron into ingots. The, take your iron ingot out once it's finished.



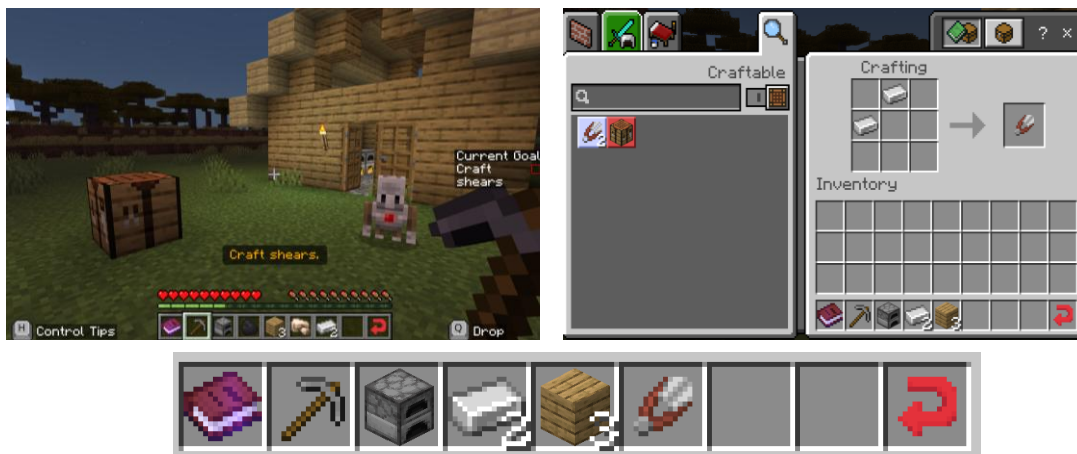
Then, have the mini-Agents smelt the rest of the iron ore.



HOW DO I MAKE A BED?

MAKE THE SHEARS

The best way to get wool is to shear a sheep with shears. Craft some shears. Place them into your hotbar.



Train the Agent on how to craft shears.

CODING SOLUTION	
Blocks	Python
	<pre># crafting patterns shears = ''' 000 0B0 00B ''' # connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'crafting' api_key = 'MC-KEY-821-597' # training data training_data = { 'crafting': shears } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

Now, it's time to find a sheep to shear!

HOW DO I MAKE A BED?

SHEAR THE SHEEP

Shear your sheep. Then have the mini-Agents shear more sheep for you.



The player needs to move quickly... We need a bed! If a player sleeps in a bed at night, it will become day! Craft a bed. Place it in your hotbar.



Train the Agent on how to craft a bed.

CODING SOLUTION

Blocks	Python
training module craft with wood craft with wool crafting grid 3x3	<pre># crafting patterns bed = ''' 000 BBB BBB ''' # connection variables api_url = 'minecraft://agent.ai/' api_endpoint = 'crafting' api_key = 'MC-KEY-821-597' # training data training_data = { 'crafting': bed } # API request ai.make_api_request(api_url, api_key, api_endpoint, training_data)</pre>

HOW DO I MAKE A BED?

PLACE THE BED

Place the bed inside your shelter.



Enjoy the closing cinematic!





LESSON REVIEW

LESSON REVIEW

COMPLETION OF THE ACTIVITIES

Once students have survived the night, they will be teleported into a new space where they will have some different options!



- Players can travel to other Minecraft Education worlds by interacting with their posters (shown above).
- Players can also participate in the Build Challenge. The build challenge will place you into a build plate with unlimited inventory.

EXTEND THE HOUR OF AI

BUILD CHALLENGE: CREATE YOUR OWN AI MINI-AGENT

Design and build your own AI mini-agent in Minecraft. Think of something that you would like help with – at school, at home, or in the world – and build an agent that makes that task easier or faster. For example, a mini-Agent chopping broccoli could help you prepare your veggies for dinner!



LESSON REVIEW

COMPLETION OF THE ACTIVITIES

After completion of these additional activities, players will exit the lesson and collect their [certification of completion](#)!



REFLECTION QUESTIONS

Gather the students back together to reflect on their experience with the following discussion questions:

- How do you define artificial intelligence?
- Tell us about your favorite part of the game.
- How can you use AI to complete tasks for/with you?
- How did you train the Agent to help you survive the night?
- Why is human verification important when using AI?

LEARNING CHECK - ELEMENTARY

Name: _____

Class: _____

Date: _____

1. What is Artificial Intelligence (AI)? Write your definition in your own words.

2. Match the AI concept to what it means:

AI Concepts:

___ Classification

___ Pattern Recognition

___ Human-in-the-Loop

Meanings:

A. Finding similarities in examples

B. People checking AI's work

C. Sorting things into groups

3. Check ALL the things you taught the Agent to do:

☐ Identify wood types

☐ Build a shelter

☐ Craft a door

☐ Craft tools

☐ Make torches

☐ Create a bed

4. Why is it important to check the AI Agent's work? Give one example from the game.

5. Think about it: Name one way AI could help you in real life (at home or school):

6. Rate your learning: How well do you understand AI now?



Color in the stars: 1 = Need help, 5 = Expert!

LEARNING CHECK - SECONDARY

Middle School (6-8) | AI Literacy & Computational Thinking

Name: _____

Period: _____

Date: _____

1. Core Concepts - Define and provide a game example:

AI Concept	Definition (Your Words)	Example from Game
Classification		
Pattern Recognition		
Human-in-the-Loop		
Transfer Learning		

2. Critical Analysis

Scenario: The Agent incorrectly classified dirt as a building material and started building with it.

What went wrong and how would you fix this error?

3. Real-World Application

Describe ONE specific way the AI concepts you learned (classification, pattern recognition, etc.) are used in a real technology you interact with (e.g., social media, video games, smartphones):

4. Ethical Consideration

Why is "Human-in-the-Loop" important when using AI? What could happen if we didn't verify AI's work?

5. Self-Assessment - Rate your understanding:

1 Confused	2 Basic	3 Developing	4 Proficient	5 Advanced
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- ☐ How AI learns from examples
- ☐ How to train an AI system
- ☐ Why human oversight matters
- ☐ How AI transfers knowledge to new tasks