Lesson Support for Stage 3: Using Agents in Minecraft: Education Edition

Lesson Duration: Approx. 2 hours

Learning Objectives:	▪ Using the Agent to build in Minecraft: Education Edition ▪ Learn how to code using Microsoft Make Code
Areas of Learning and Experience:	The steps within this stage offers opportunities to develop: ▪ **NA**
Cross-curricular skills:	The steps within this stage offers opportunities to develop: ▪ **Literacy** - Developing oracy through discussion ▪ **DCF –** ○ **Data and computational thinking:** Problem-solving and modelling / Data and information literacy
Guiding Ideas / Possible questions to ask:	What is an Agent? Why would we use an Agent in Minecraft: Education Edition? What are the advantages of using Agents in Minecraft: Education Edition? In which types of industry could you use an Agent (Robot)? What are the benefits of employing Robots? What are the drawbacks of employing Robots?

Introduction / Starter

The perfect design is rarely finished at the first attempt. We will investigate how using code to build can help us.

Use this video to introduce Code Builder for Minecraft: Education Edition, allowing learners to code in-game

During this lesson the learners will undertake the Agent Trials Tutorial located in Play>View Library>How to play>Additional Tutorials>Code Builder Tutorial

Alternatively, the learners could undertake the "Hour of Code' lessons which are built into Minecraft: Education Edition. Here is a link to a video about the AI for Good lesson.

Learner Activities	Differentiation	Achievement outcomes
Step one		
Leaners will need to complete the tutorials independently. Navigate the learners to the Agent Trials (as shown above). Teachers may need to demo 'agent teleport to player' to begin: ▪ Press C for Code Builder ▪ Place block 'agent teleport to player' ▪ Rename Chat command ▪ / for command screen ▪ Run Command Ask learners to complete Challenge 1 & 2	Teacher input. Instructions could be put on a separate sheet.	▪ Identify improvements
Assessment Opportunities		
▪ How could they see using Agents useful? ▪ What problems did learners encounter? ▪ How did they overcome the problems?		
Step two		
Encourage learners to take on Challenge 3 & 4	Teacher input. Differentiation by outcome All learners will not proceed at same speed. Extension Task – Challenge 5 & 6.	▪ Identify improvements

Assessment Opportunities

- What problems did learners encounter?
- How did they overcome the problems?
- Can the learners begin to think how the agents can be used to build the castle?

Step three

The learners will need to export their tutorial worlds. This will need to be demonstrated by the teacher. (Click here for demo) The learners will need to export their file to a central location on the school server or to a USB device. A naming convention should be discussed (i.e. Initials & Date)	Teacher input.	▪ All words exported successfully

Assessment Opportunities

- Why is it important to give files and folders suitable names?

Plenary

Ask the learners the questions below:

- What progress have you made today?
- Did you give up at the first attempt?
- Which skills have you learnt today? (Perseverance, problem solving, reading)
- How can you use your agent in the building of your castle?
- What advantages are there to using Agents in Minecraft: Education Edition?

Key Vocabulary:

- Agent
- Tutorial
- Algorithm
- Programming
- Coding

Resources / Supporting files:

Minecraft: Education Edition installed on devices