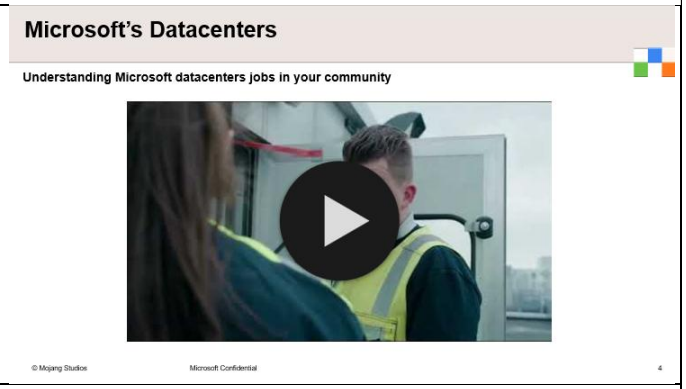
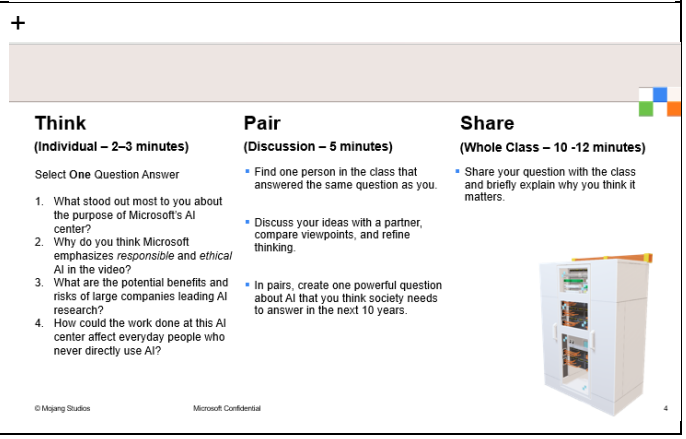
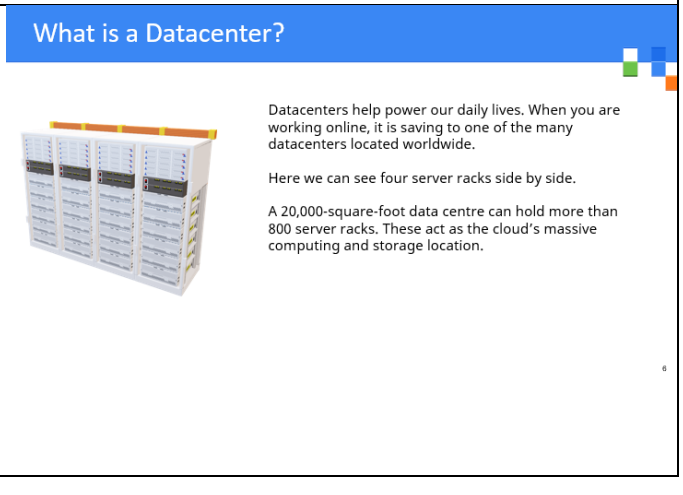
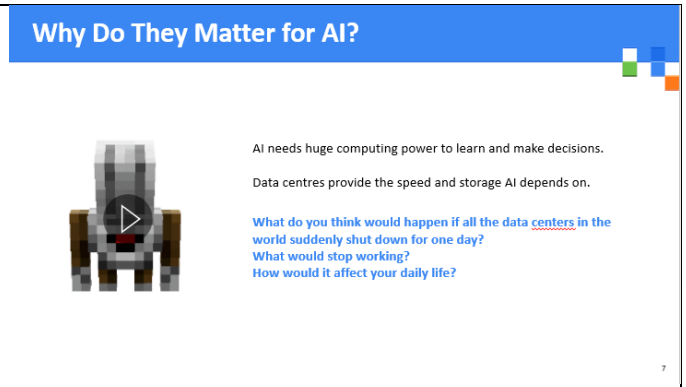
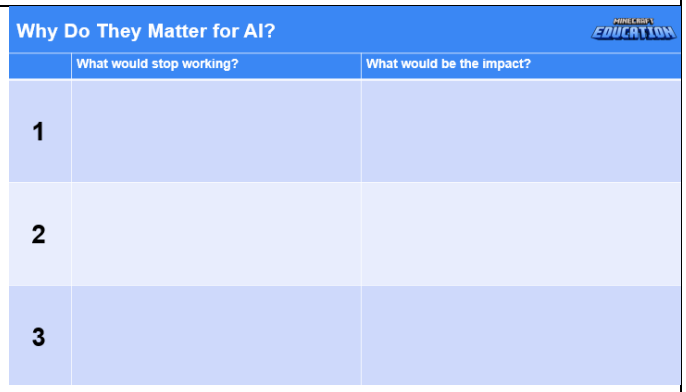
Cloud Community Teacher Lesson Plan

Timing	Suggested Talking Points	Presenter Actions	On Screen
Prior		**Prior to the lesson, ensure you have taken the time to read the teacher guide and made any of the resource material available for your students to access as a paper or digital copy.**	

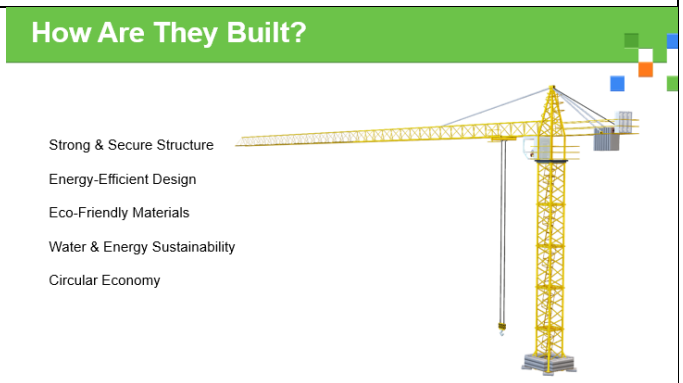
1 Min	**Say:** Welcome! I am excited to learn more about Microsoft Data Centers through what will be a fun Minecraft experience. Before we start let's look over our learning objectives.	**Do:** Read over the learning intentions on the slide Advance to the next slide.	
3 Mins	**Say:** We are now going to watch a 3 min video explaining the development of a Microsoft Data Center. Link: Understanding Microsoft datacenters jobs in your community https://www.youtube.com/watch?v=2auPgz029O8	**Do:** Play the video Advance to next slide	
15 – 20 Mins	**Say:** Before we talk about what we just saw, I want you to think about the impact data centers have on society. Specifically, I want you focus on one of these four questions: 1. What skills or interests does the video suggest are useful for working in a datacentre? 2. How does the video explain the connection between datacentres and the local community?	**Do:** Facilitate the Think, Pair, Share activity with your students. Refer to the activity sheet on the next slide to assist students in brainstorming their ideas.	

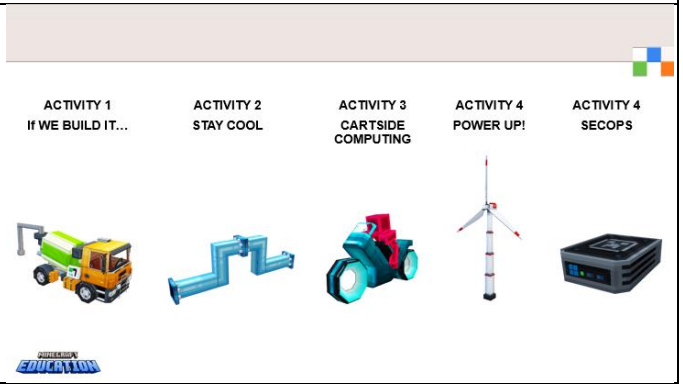
	3. According to the video, what is a Microsoft datacentre, and what is its main purpose? Then I want you to pair up with someone in the class who answered the same question. You will need to discuss your ideas, compare viewpoints, and refine your thinking. Then, in your pair, I want you to create one powerful question about AI that you think society needs to answer in the next 10 years. When time is up, I will ask some pairs to share their questions with the class and briefly explain why they think it matters.	Advance to the next slide.	
30 sec	**Say:** Microsoft datacenters help power our daily lives. When you are working online, it is saved to one of the many data centres located worldwide. Here we can see four server racks side by side. A 20,000-square-foot data centre can hold more than 800 server racks. These act as the cloud's massive computing and storage location.	**Do:** Refer to the image on the slide when needed. As an example, 20,000 square feet = 7 Tennis courts Advance to the next slide.	

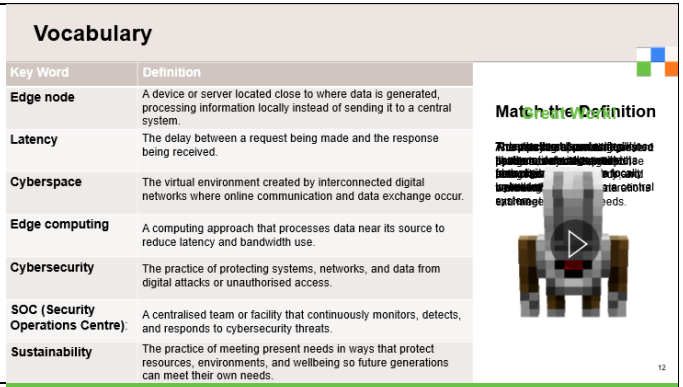
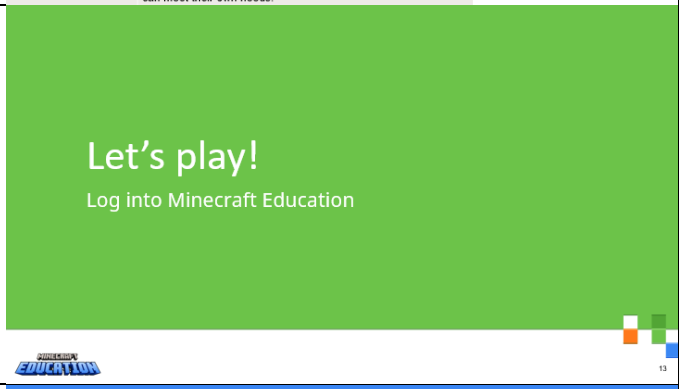
1 Min	**SAY:** Think about how much power your brain uses when you're solving a challenging math problem. Now imagine an AI system trying to learn millions of patterns at once—it needs way more power than a single computer can handle. That's where data centres come in. They're like giant computer hubs that give AI the speed and storage it needs to work. Every time you use an AI tool—like a chatbot, a game recommendation, or image recognition—the data center is doing the heavy lifting behind the scenes. Without these data centres, AI wouldn't be able to process vast amounts of information quickly or store all the data it learns from. They're the backbone of cloud AI services.	**DO:** Work through the inquiry question with students: "What do you think would happen if all the data centres in the world suddenly shut down for one day? How would it affect your daily life?" Refer to the next slide for more information	
5 Mins		**PRINT** Complete as either a single- or a pair-task. Ask the student to think of three services that would stop working if all the data centres in the world suddenly shut down for one day. Then ask them to explain the potential impact. Then select some students to share their thoughts	

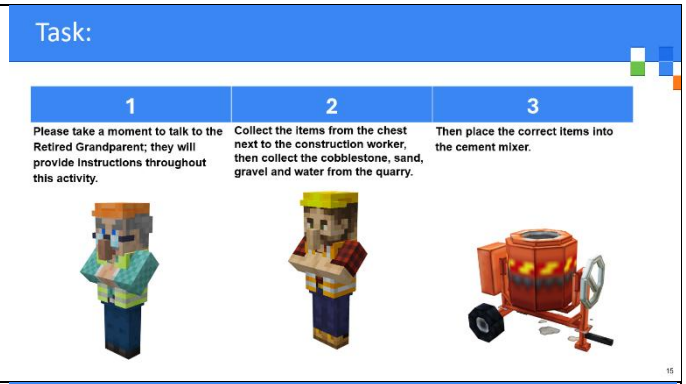
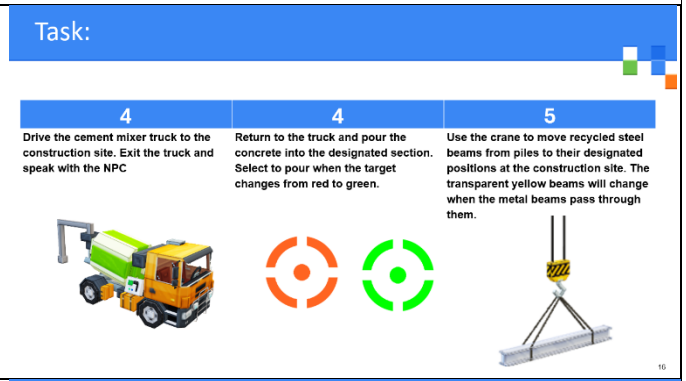
		and encourage other students to think critically about their responses. Here are some **critical discussion prompts** a teacher could use to guide the task: • Which everyday digital services rely on data centres, even if we don't see them directly? • Why might some services fail completely while others only be partially affected? • How would the shutdown of data centres affect communicatio n, learning, or access to information?	

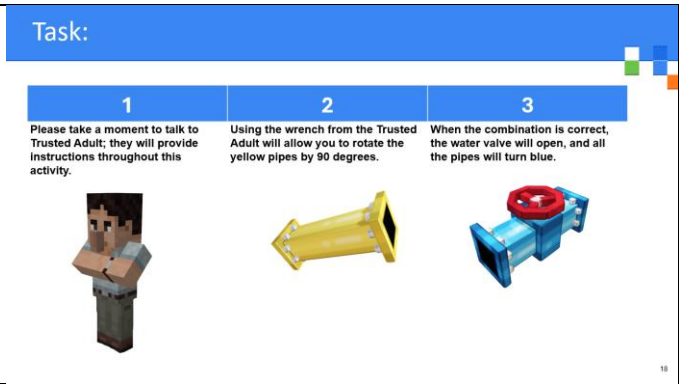
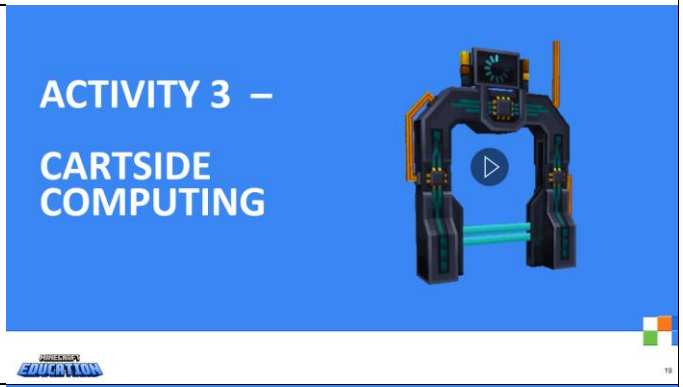
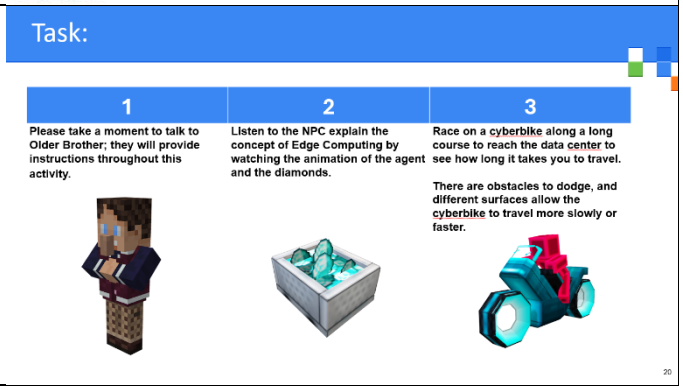
		• Who would be most impacted by this disruption (e.g. students, hospitals, businesses, governments), and why? • What short-term impacts might people notice within hours, and what longer-term impacts could emerge after a full day? • Are there any services you think might continue to work despite the shutdown—what makes them different? • How does this scenario help us understand	

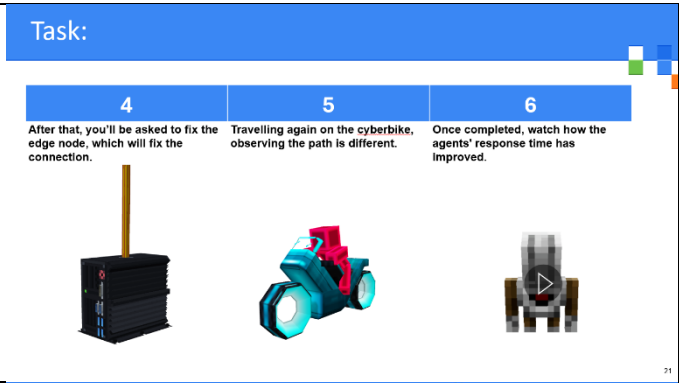
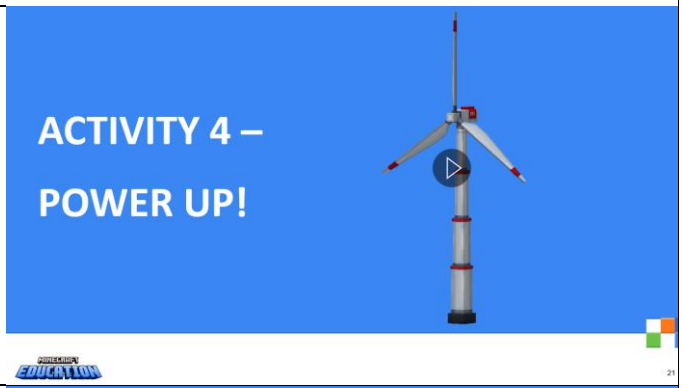
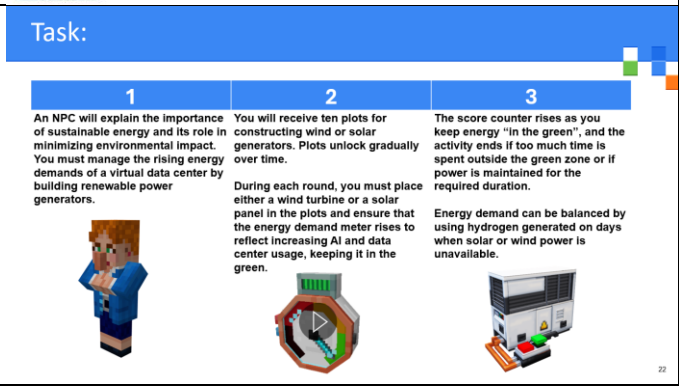
		the importance of data centres in modern society? • What risks does our reliance on data centres create, and how might these risks be reduced?	
30 sec	**SAY:** First, the building itself is designed to be strong and secure. It uses reinforced materials and safety features to protect the servers from things like storms, earthquakes, and fires. Second, the design focuses on energy efficiency. The layout helps natural airflow and uses smart cooling systems so the building doesn't waste energy. Third, Microsoft uses eco-friendly materials. Instead of traditional concrete and steel, they often use cross-laminated timber, which can cut carbon emissions by up to 65%. They also include recycled steel and low-carbon concrete. Fourth, sustainability is built in. These data centers use water-free cooling systems and run on renewable energy like solar and wind. Even		

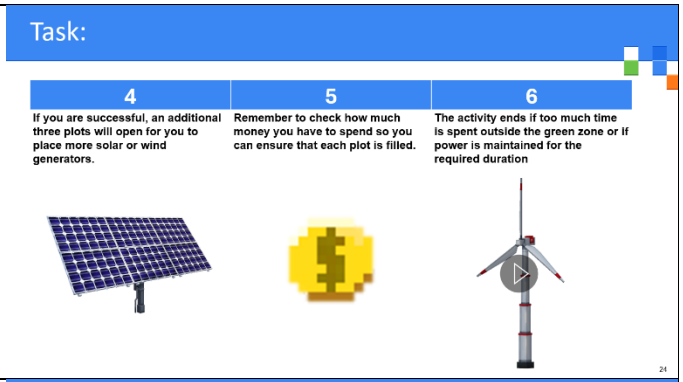
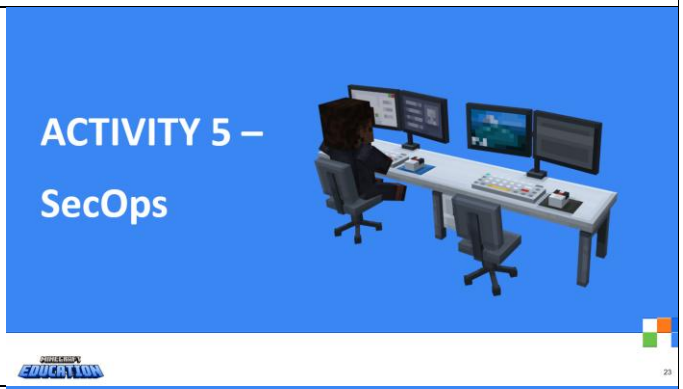
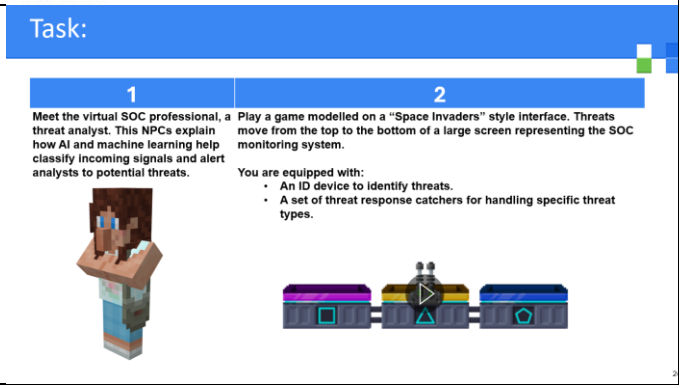
	the backup power is moving toward diesel-free by 2030. Finally, the building supports a circular economy. Inside, there are spaces for recycling and refurbishing servers, with a goal of reusing 90% of them by 2025.		
30 sec	**Say**: Today, you will arrive in a Minecraft village. However, a new data center needs to be built. We need your help to make sure everything is up and running correctly so we can begin to provide services to the local community and world, whilst supporting the growing demand for AI. In this world, you will have five missions to complete.	**Do:** Advance to next slide	
30 sec	**Say**: So there are the 5 missions you will need to complete. Each student will be asked to build the datacenter first, then can choose the order they want to complete the four remaining missions.	**Do:** You may wish to use the Missions worksheet to support students in understanding what they have learn in each mission. Advance to next slide	

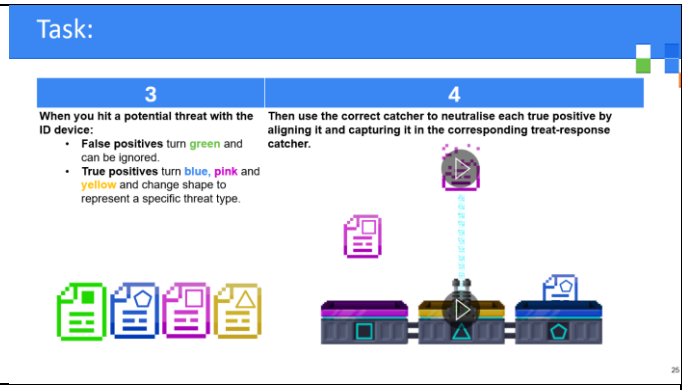
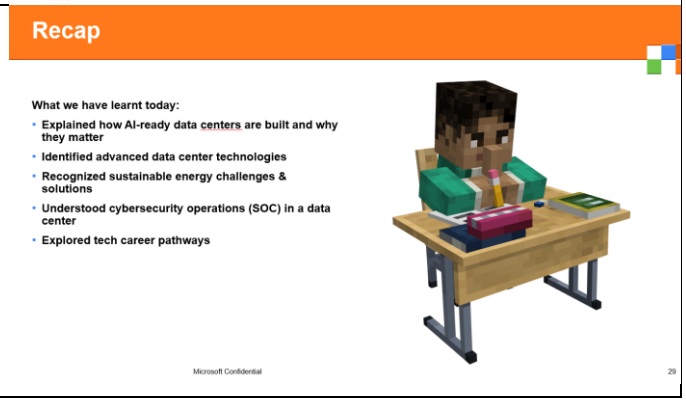
1 Min **Note: This slide appears correctly when in presentation mode.**	**Say:** Before we start your first activity, let's get familiar with some of the vocabulary throughout the game. As a class, let's see if we can match the definition with the keyword.	**Do:** Click through the slide to transition to the next definition. Advance to the next slide	
1 Min	**Say:** Let's Play!	**Do:** Support participants in starting the game. Advance to the next slide	
30 sec	**Say:** Let's explore what we need to do in Activity 1	**Do:** Advance to the next slide	

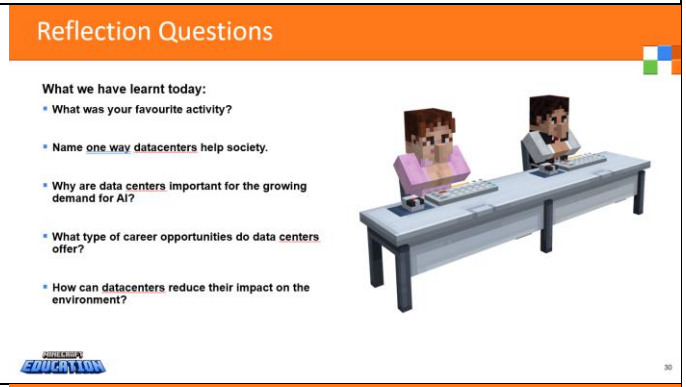
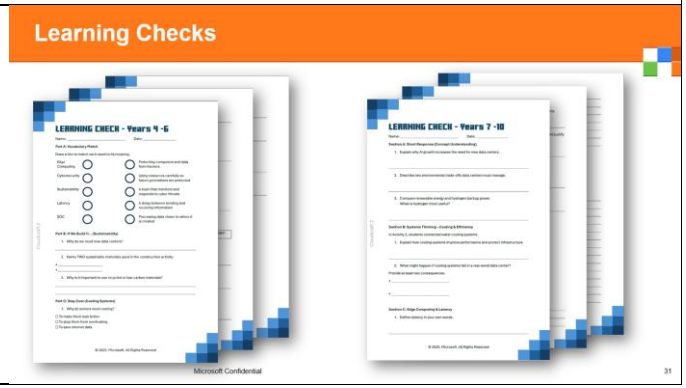
1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	
1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	
30 sec	**Say:** Let's explore what we need to do in Activity 2	**Do:** Advance to the next slide	

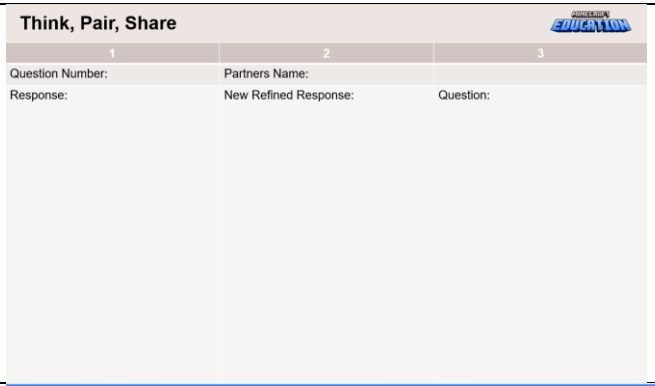
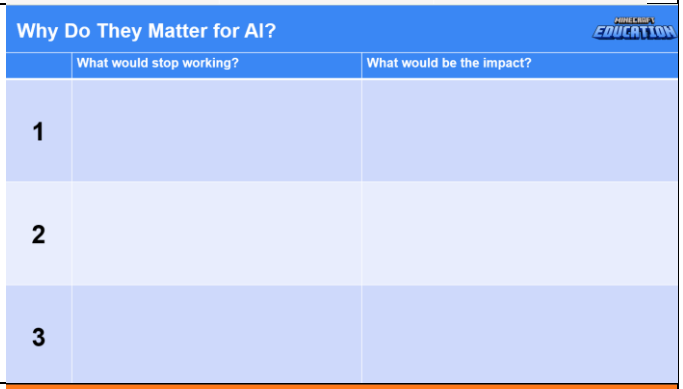
1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	
30 sec	**Say:** Let's explore what we need to do in Activity 3	**Do:** Advance to the next slide	
1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	

1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	
30 sec	**Say:** Let's explore what we need to do in Activity 4	**Do:** Advance to the next slide	
1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	

1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	
30 sec	**Say:** Let's explore what we need to do in Activity 5	**Do:** Advance to the next slide	
1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	

1 min		**Do:** Support students by following the instructions on the slide. Advance to the next slide	
30 sec		**Do:** Take the opportunity to consolidate student learning and check for understanding.	
1 min	**Say:** Let's take a moment to recap what we have learnt today. We have had the opportunity to learn and know better understand the follow: • **Explained how AI-ready data centers are built and why they matter** • **Identified advanced data center technologies** • **Recognized sustainable energy challenges & solutions**	**Do:** Advance to the next slide.	

	• **Understood cybersecurity operations (SOC) in a data center** • **Explored tech career pathways**		
5 min	**Say:** It's also important to reflect on what we have learnt. I want you to think about these questions and answer them as best as you can based on what you learnt after playing the game.	**Do:** Ask participants to answer the questions.	
	Say: We are now going to take a moment to check and see what you have learnt today. I am going to give you a brief learning check. Take your time and answer each question as best you can.	**Do:** Print or digitally share the appropriate learning check (from the Educator Guide) with each student.	

		Do: Print or digitally share the following slide to support students.	
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