



Game lesson title	Introduction to AI and Game Design Hackathon		
Brief intro	This lesson is the first in a series designed to introduce students to AI tools and their applications in game design. Students will learn about various AI technologies and how they can be used in the game development process. This lesson sets the foundation for the upcoming hackathon-style project where students will create their own AI-assisted games.		
Lesson hook	Imagine creating your own video game with the help of an AI assistant. What kind of game would you design, and how could AI make your ideas come to life?		
Suggested year level	9/10	Suggested age level	14-16
Suggested duration	45 minutes	Costs involved? (detail below)	N/A
Author	You are free to copy, communicate and adapt this lesson plan which was created by Leon Furze and ACMI, licensed under a Creative Commons Attribution 2.0		
Subject/s			
☒ [subject] Digital Technologies			
Curriculum/Capabilities Alignment (VIC/AC) and Skills			
Please find the relevant VIC and AC Curriculum points			
VC2TDI10C01: Define and decompose real-world problems, taking into account functional and non-functional requirements and by interviewing and surveying stakeholders to identify needs			
VC2TDI10C03: Design, modify and prototype the user interface and user experience of a digital system; generate, communicate and critically evaluate alternative designs against design criteria			

Game Used	NA
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Game play required?	No		
CLASSIFICATION	DEVICE/s	INTERNET REQUIRED?	COST (RRP)
<i>Note: Terms and conditions for AI tools are generally 13+ but Adobe Firefly is K-12</i>	Cloud based – any device	Yes	School subscriptions vary. Access to Copilot and ChatGPT free for limited use.
Important note about Game Classification			
As classifications can change, teachers are responsible for checking the latest videogame classification and suitability for their class age group. Please visit https://www.classification.gov.au/ and https://www.common sense.org/education/ to guide you.			
How are games used by students in the lesson?			
☒ Watchers – observing, analysing and evaluating. Learning about the world and ourselves through understanding the impact of games culture and industry. ☐ Players - learning by playing videogames - learning things applicable to life outside of (and in) the game e.g. flight simulators, esports, etc. ☒ Makers - learning through making games (coding, creative production, teamwork, leadership) ☐ Explorers (Minecraft) – imaginative, self-directed, exploratory/sandbox learning.			
eSafety Considerations			
Ensure students are aware of responsible internet use and privacy considerations when using AI tools.			

Prior knowledge/skills (Required/Recommended/References)
Basic computer skills and familiarity with video games concepts.



Student outcomes	
Learning goals	KNOW: The basic concepts of AI and its applications in game design; The different AI tools that will be used in the hackathon (ChatGPT, Copilot, Adobe Firefly, DALL-E 3)
	BE ABLE TO: Identify potential applications of AI in game development; Brainstorm initial game ideas considering AI assistance
	IMPROVE: Understanding of the game development process; Critical thinking about the role of technology in creative processes
LESSON SEQUENCE	
Prep & introduction activities	1. Begin with a brief introduction to AI and its relevance to game design. 2. Show a short video clip demonstrating AI-assisted game development. 3. Discuss the goals of the upcoming hackathon series.
Main lesson activities	1. Present an overview of the AI tools to be used: ChatGPT, Copilot, Adobe Firefly, DALL-E 3 (10 minutes) 2. Group discussion: Potential applications of these tools in game development (5 minutes) 3. Individual brainstorming: Students jot down initial game ideas, considering how AI could assist (5 minutes) 4. Pair-share: Students discuss their ideas with a partner, giving and receiving feedback (5 minutes)
Reflection activity	1. Class discussion: What excites you most about using AI in game design? What concerns do you have? 2. Quick write: How do you think AI might change the game development process?
Differentiation: modification, extension and inclusion notes	Modification: Provide pre-made game concept templates for students who struggle with initial ideation. Extension: Ask advanced students to consider potential ethical implications of AI in game design. Inclusion: Ensure all digital content is accessible, with captions for videos and screen reader-compatible text.



Student Homework/Further Work
Research one existing game that uses AI and prepare a brief presentation on how AI is implemented in that game.
Assessment
Formative assessment based on class participation and the quality of initial game ideas. Collect students' brainstorming notes for review.

ACMI Game Lessons acknowledges the support of the Department of Education, Victoria, through the Strategic Partnerships Program.