AI and Digital Literacy Teaching and Learning Story

TASK DESIGN	
Learning Experience Title	*What is AI? How can we use it? What should we look out for?*
Grade	Grade 3/4/5
Learning Area(s)	Applied Design, Skills, and Technology (ADST)
Curricular Competencies	• Explore the use of simple, available tools and technologies to extend their capabilities (3) • Choose appropriate technologies to use for specific tasks (4-5) • Demonstrate a willingness to learn new technologies as needed (4-5)
Curricular Content	Students use learning standards for ADST at this level that are in combination with other areas of learning in cross-curricular activities. Learning standards from other areas could include: • roles and responsibilities at home, at school, and in the local community (Career Education K-3) • generational roles and responsibilities (Career Education 4-5)
Links to Core Competencies	Thinking • Critical and Reflective Thinking
Links to First Peoples Principles of Learning	• Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place). • Learning involves recognizing the consequences of one's actions. • Learning involves recognizing that some knowledge is sacred and only shared with permission and/or in certain situations.
TASK SUMMARY	

The class discussed AI, digital literacy, and our responsibility for how it is used in our daily lives. This conversation was facilitated through a slide deck, short videos, and image examples of AI use. Students played an unplugged game that mimicked basic machine learning. Students synthesized their learning by reflecting on game results and the big ideas learned in the lesson.

Teacher reflections
Prior to receiving the AI lesson, this class already possessed a solid understanding of responsible technology usage, including the effective utilization of new systems and programs.

AI and Digital Literacy
# Teaching and Learning Story

LEARNING STORY

PLANNING

A slide deck on the topic of AI was created through consultation and collaboration with fellow educators.
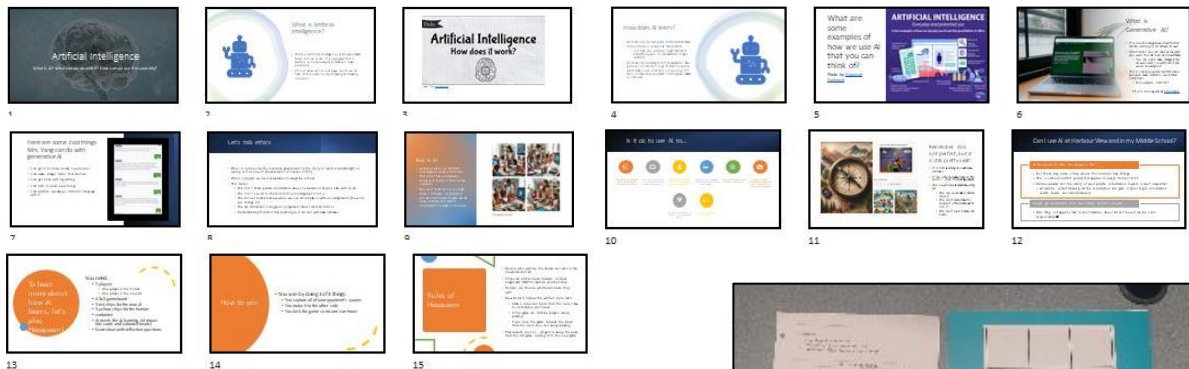
Lesson preparation included:

- printing learning cards for each pairing
- making game boards (printing, gluing onto cardstock, and laminating)
- collecting small containers to hold game pieces
- printing progress reporting sheets.
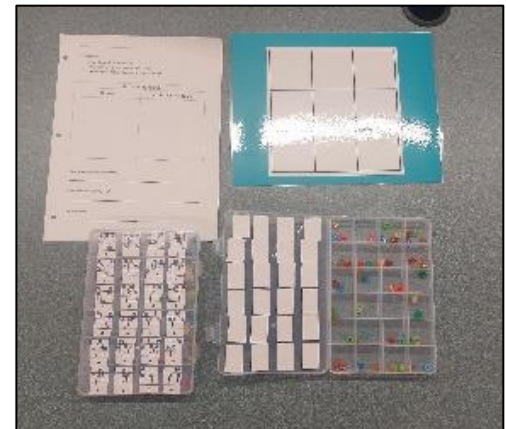
TEACHING

The topic of AI was introduced by asking students what they knew about it. Following this, a slide deck on AI was presented, accompanied by a brief video providing an overview of the subject. The presentation covered various aspects, including the applications of AI, ethical considerations, biases, and whether AI use is permitted within their school.

The formative assessment involved listening to student responses and assessing the examples of ethical and non-ethical use of AI that students shared – could students see a difference in how AI could be used to help or harm in a variety of contexts? Students looked at visual examples of bias in AI and how AI can make mistakes with simple commands.
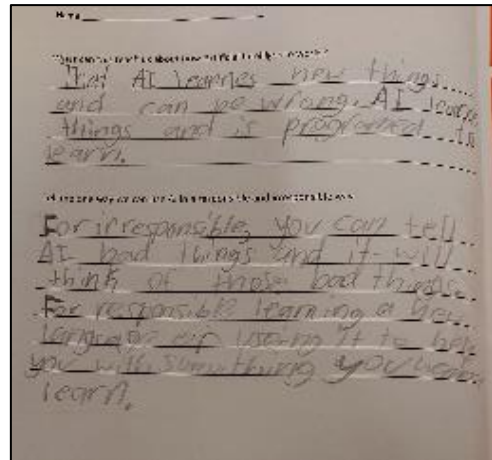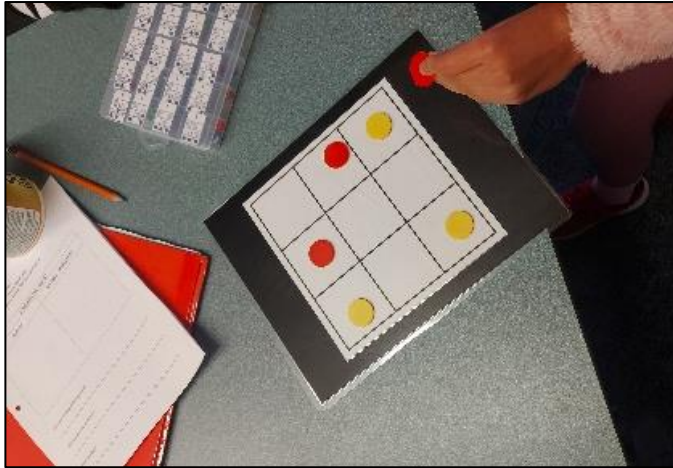
Students engaged with the unplugged game which required one student to act as a human and the other as an AI. AI must follow a set of rules and can learn from its mistakes, while humans have free will. The game illustrates how basic machine learning mimics how AI can improve over time. Students were asked to keep score and reflect on their results.

AI and Digital Literacy Teaching and Learning Story

ASSESSMENT
STUDENT A
TEACHER OBSERVATIONS AND STUDENT WORK

Teacher provided summary:

During the unplugged game time, Student A was the player who mimicked AI and had to consult the game box for the appropriate move set that matched their context. Student A communicated with their partner about how the rules of their role would sometimes force their game pieces into disadvantageous situations. Often, they would reassure themselves that making mistakes was integral to improving the AI's code and that they would be allowed to make better decisions in the later rounds.

When Student A was reflecting on their games, they could recognize that the code wasn't ideal in the beginning and that by extension, AI is not a perfect system. They were also able to discern between responsible and irresponsible ways of using AI.

Teacher reflections
The lesson effectively ensured that students understood both what AI is and the digital literacy considerations they will encounter. The un-plugged game was a great success with high engagement and students supporting one another while playing. Oftentimes, students would help clarify rules for each other. Those who typically refrain from participating or contributing during lessons significantly increased their engagement and became more proficient at expressing their learning.

Teacher reflections
Students analyzed situations where AI use may not be appropriate and where ethical considerations may be ambiguous. Relevant examples were provided to help students relate to potential real-life scenarios. In their responses, students were able to articulate both responsible and irresponsible uses of AI.

AI and Digital Literacy Teaching and Learning Story

STUDENT B
TEACHER OBSERVATIONS AND STUDENT WORK
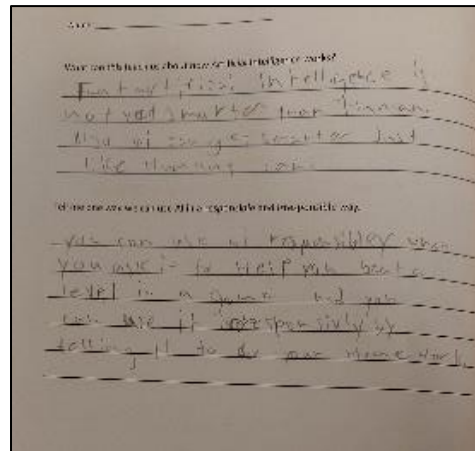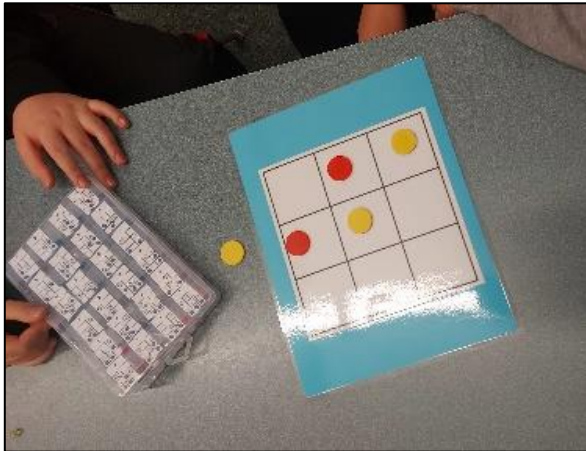
Teacher provided summary:

During the unplugged game time, Student B was the human player. They were able to help their partner (the AI player) with finding the correct algorithm to aid in determining what the move set was. Student B communicated to their partner how human-decision making will likely win more rounds at the beginning of the game because the AI hasn't had a chance to learn from the information.

When working on the reflective piece, Student B could thoughtfully communicate how an AI works and learns, and how we can use it critically.

Teacher reflections

Utilizing real-life examples of AI applications was instrumental in effectively conveying to students the complexities of AI and its associated safety and ethical considerations. During the lesson, students were presented with a diverse range of images. These included chat conversations with AI conducted in different languages, AI-generated images exhibiting notable errors in response to basic prompts (such as compasses with incorrect cardinal directions), examples of misunderstandings to highlight bias, and instances of amusing outcomes encountered while attempting to edit images.