AI Lesson Plan

Develop a lesson plan to demonstrate how you would use AI in your classroom to fit your grade/age level. Lesson plans will be shared at the final live session on December 17th.

Name: Ann Nicholson

Subject(s) Taught: Professional Development for ES and MS teachers who are teaching or want to teach Computer Science

Grade Level: ES and MS Teachers

Intro & Purpose

Describe how you would introduce your topic to spark student interest.

This lesson provides an introduction to Artificial Intelligence. Participants will:

- Develop a basic understanding of AI
- Develop definitions of the key terms
- Experience and identify examples of AI
- Experience and evaluate resources they might use with their students

Warm Up or Anticipatory Set: What is AI?

- Generate a discussion of what AI is by having participants record responses with post it notes on the Jamboard: <u>What is your definition of AI?</u>
- Discuss definitions and then watch video: Video: What is AI (or Machine Learning?)
- (Throughout the lesson, participants can take notes in <u>Intro to AI Notes Doc</u>)

Key Terms

List the key terms relevant to your topic.

Artificial intelligence Robot Machine Learning Neural Network

Activity

Describe a learning activity that would aid student understanding of your topic. List the resources needed.

Activity 1: Robots or AI

Robot or AI Venn Diagram:

- Have participants place items on a Venn diagram based on whether or not they describe an example of a robot or AI or combination.
- Discuss rationale behind placement of items.
- Discuss additional items that could be added.

Activity 2: Machine Learning

- <u>Quick Draw</u> Participants help teach a computer to recognize doodles using the world's largest doodling data set.
- Reflect as a group on the activity (what did you like, what was surprising, could you use this with your students?)
- After participants try out Quick Draw, watch the short video on how it was created: <u>Quick Draw Video</u>
- For further information, watch the Code.org video: <u>What is Machine Learning?</u>

Activity 3: Neural Network

- Show a sample audio model project on <u>Teachable Machine</u>
- Watch the video <u>AI Explained</u> <u>What is a Neural Net?</u> Discuss why large sets of data are needed to train computers to recognize images.

Activity 4: Reflection

- Participants complete last section of <u>Intro to AI Notes Doc</u> on their own
- Pair up participants to discuss their reflections
- Whole group share out on reflections

Assessment

Describe how you would assess student learning and understanding

The last part of the <u>Intro to AI Notes Doc</u> contains a reflection for teachers to respond to the following prompts:

- What did you learn about AI?
- What questions do you have about what you've learned today?
- Which activities do you think you might use with your students?

This assessment will be done as a Think - Pair - Share activity.