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.

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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: What is your definition of AI?

- Discuss definitions and then watch video: Video: What is AI (or Machine Learning?)

- (Throughout the lesson, participants can take notes in Intro to AI Notes Doc)

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**
- **Quick Draw** 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: [Quick Draw Video](#)
- For further information, watch the Code.org video: [What is Machine Learning?](#)

**Activity 3: Neural Network**
- Show a sample audio model project on [Teachable Machine](#)
- Watch the video [AI Explained - What is a Neural Net?](#) Discuss why large sets of data are needed to train computers to recognize images.

**Activity 4: Reflection**
- Participants complete last section of [Intro to AI Notes Doc](#) 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 [Intro to AI Notes Doc](#) 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.