AI Lesson Plan: What are Neural Networks and how does it apply to Artificial Intelligence

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: Dee Hamlett

Subject(s) Taught: PreK-8th Grade Computer Science

Grade Level: 1st Grade

Intro & Purpose

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

Students will make connections on how humans and computers create networks called Neural Networks.
- They will begin the first week with several introductory media on what is Artificial Intelligence and conclude the activity with a drawing of what AI means to them.
- The following week, students will watch a brief video on neural networking and then interact with a virtual neural networking activity on Google Docs. The students will conclude their activity by answering questions from the virtual activity on Google Forms.

List the key terms relevant to your topic.

Artificial Intelligence - the computer's ability to think and learn
Neural Network - making connections from data that a human or computer inputs
Machine Learning - the connections a computer makes through trial and error (like students with growth mindset and learning by making mistakes)
**Activity**

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

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**Week 1: Class 1: What is Artificial Intelligence**

I would first show a video on AI to introduce the students to what AI is and how it is changing the world. Then I am going to read a book called *Neural Networks for Kids* by Dr. Dhoot in Google Classroom, students will submit a drawing of what AI means to them.

**Week 2: Class 2: What is Neural Network and Machine Learning**

Students will begin the class with a quick refresher about what AI means. Students will answer the question “What is Artificial Intelligence?” After a brief 5min discussion on what AI means, students will watch a video on Machine Learning and Neural Networks.

**String Activity:** Next we will create a bitmoji to add to a Google Doc that the whole class will have access to. With this document, students will draw lines from their bitmoji to classmates that have the same responses as them, making Neural Networking connections. The teacher will spin the wheel on the promethean with each child’s name on the spaces provided to ask a question of their peers.

**Questions:**
- Are you 6 years old?
- Do you have brown eyes?
- Is your hair blonde?
- Do you have pink on?
- Did you wear a coat today?
- Does your hat have a ball on the top of it?
- Do you have gloves?
- Do you have mittens?
- Are your boots black?

...etc.

Once the virtual string activity is complete, students will see the connections that they have made with their classmates. We will conclude the lesson by watching this video on Neural Networking.

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**Assessment**

Describe how you would assess student learning and understanding

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Using Google Classroom, students will answer a Google Form for the following questions:
- What color of eyes does your technology teacher have? blue/brown
- What color of hair does your technology teacher have? blonde/brown
- Is your teacher wearing pink? yes/no
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did your teacher wear a coat?</td>
<td>yes/no</td>
</tr>
<tr>
<td>Does your teacher have a ball on the top of her hat?</td>
<td>yes/no</td>
</tr>
<tr>
<td>Do computers make mistakes?</td>
<td>yes/no</td>
</tr>
<tr>
<td>Can computers learn?</td>
<td>yes/no</td>
</tr>
<tr>
<td>Can you learn?</td>
<td>yes/no</td>
</tr>
<tr>
<td>Are human networks the same as computer networks?</td>
<td>yes/no</td>
</tr>
<tr>
<td>Artificial Intelligence is the computer's ability to think and learn.</td>
<td>yes/no</td>
</tr>
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</table>