



Name:

Date:

Artificial Intelligence and Machine Learning: Independent Learning Guide

The role models in the video "Artificial Intelligence and Machine Learning" explain these two fields and share ideas about the future of artificial intelligence and machine learning.

Watch the video "[Artificial Intelligence and Machine Learning](#)" at least once. Then read each statement below. Think carefully about each question before you answer it.

- 1. One role model explained that algorithms are "a way to make computers do things that humans think are intelligent."

What types of things do humans think are intelligent? Why might we want computers to do these things?

- 2. Listeners learned that algorithms can be biased.

How might algorithms become biased? Why would this be bad? What can we do to help prevent biases from entering our algorithms?

3. In the video, some of the role models work in machine learning.

What is machine learning? What types of tasks can be accomplished through machine learning? Is this a career that might be interesting to you? Explain your answer.

4. Many of the role models spoke about the ability of robotics and artificial intelligence to help older people or disabled populations.

How can artificial intelligence help these groups of people? What might be some challenges of introducing this technology to older or disabled people? How might those challenges be overcome?

5. The role models discussed self-driving cars and robots as examples of ways that this technology could help elderly people.

What other future uses of artificial intelligence, machine learning, or robotics can you think of? Who would benefit from each of the uses you thought of? Can you think of any drawbacks related to the use of artificial intelligence, machine learning, or robotics?



6. Listeners heard the role models use lots of mathematical language such as *modeling, algorithm, and scenario.*

Do you think you have to be a math genius to work in these fields? Why or why not? If you are interested in a career in one of these fields, how could you begin preparing now?
