Course: Introduction to Artificial Intelligence I Module: What is AI?

Lesson 1.1: What is Artificial Intelligence?

https://codehs.com/course/8264/lesson/1.1

Description	Through examples, students are introduced to the field of Artificial Intelligence. Students explore the definition of intelligence and determine if programs are capable of thinking intelligently.
Objective	Students will be able to: • Define Artificial Intelligence • Explain what makes a program intelligent
Activities	1.1.1 Video: What is Artificial Intelligence? 1.1.2 Quiz: What is Artificial Intelligence? 1.1.3 Connection: A Day in the Life of AI 1.1.4 Free Response: A Day in the Life of AI 1.1.5 Connection: Guess the Drawing 1.1.6 Connection: Drawing with AI 1.1.7 Free Response: Drawing with AI
Prior Knowledge	• Students should be generally familiar with how algorithms are written and executed.
Planning Notes	• If students are unable to access the Youtube video associated with this lesson, they can go to this alternate link. • If students are unable to access the link to Pictionary, the activity *Guess the Drawing* can be done completely offline.
Standards Addressed	
Teaching and Learning Strategies	**Lesson Opener:** • Ask students to answer the Beginning of Class discussion questions. Pair students up to create a working definition of intelligence. [5- 7 mins] ◦ Alternatively, write the word intelligence on the board. Have students come up to the board and write any words they associate with the word intelligence. Discuss the trends

between words that students add to the board, and come up with a definition based on student responses.

Activities:

- Watch *What is Artificial Intelligence* and complete the corresponding quiz. [7 mins]
  - After watching the video, ask students the discussion questions again - are their pets intelligent? Their computers?
- Complete *A Day in the Life of AI* and the corresponding free response. [10 mins]
  - Have students share their responses with a classmate, then discuss as a class - were students surprised by which items in their life use AI? Or how many there are?
- Complete *Guess the Drawing*. [10 mins]
  - Consider doing this activity as a whole class. Have one student come to the front of the class and attempt to draw on the board. Time students until one of them gets the correct answer. Note the time on the board for student reference in the next activity. This can be done completely offline if needed.
- Complete *Drawing with AI*. [10 mins]
  - Before beginning, consider showing the introductory video explaining how AutoDraw works.
  - Have students use the same words that they used in the in class version. Students should compare the time it took for AutoDraw to figure out the drawing to the class.

Lesson Closer:

- Exit Ticket: Have students answer the following question as an exit ticket - Is AutoDraw intelligent? Why or Why not? [5 mins]
- If there is time, complete the end of class discussion questions with students. [5 - 10 mins]

Discussion Questions

Beginning of Class:

- In your own words, what is intelligence?
  - *Answers may vary*.
- Are your pets intelligent? Why or why not?
  - *Answers may vary*.
- Is a computer intelligent? Why or why not?
  - *Answers may vary*.

End of Class:

- Do you consider AutoDraw intelligent? Why or Why not?
  - *Answers will vary. AutoDraw would be considered intelligent, as it learns how to better predict shapes the more often it is exposed to new drawings.*
- How does Artificial Intelligence learn?
  - *AI learns as a result of the data that it receives. The more data that it has, the better able it is to make predictions and*

	figure out trends in the data. • What's one thing you use in your everyday life that has Artificial Intelligence? ◦ *Answers will vary. Students may say search engines, Netflix recommendations, etc.*
Resources/Handouts	

Vocabulary

Term	Definition

Modification: Advanced	Modification: Special Education	Modification: English Language Learners
• Have students use more complex vocabulary words when playing pictionary to test the limits of the AutoDraw software. For example, try drawing "sophisticated".	• Use words that are accessible to all students when playing pictionary.	• Allow students to play pictionary in their preferred language.