Class: **Computer Science Ethics**	Date: **05-16-22**	Topic: **Algorithms**
Materials: **Powerpoint, Articles, SPO Outline.**	Aim: **How can the increased use of algorithms affect our future?**	

Differentiation:

- Offer students with IEP 1:1 support.
- Use of video and images for multiple entry points.
- Use of a graphic organizer to aid in writing.
- Offer a wide selection of articles to choose from.

Class Period Length: **50 minutes**
Teacher Actions:
Greet students upon entry. Ask students to copy the topic, aim, and answer the do-now in their notebooks.

Do-Now (2 minutes): Students will have to answer the trolley ethical dilemma and write a short explanation of their thoughts and reasoning behind their choice.

I-Do (10 minutes): Teacher will begin by asking students to share their do-now responses. The teacher will stimulate discussion by asking students if they agree with their peers. Teacher will transition from do-now by describing ethical dilemmas that will involve algorithms. Then the teacher will describe the benefits of algorithms followed by what an algorithm is, and how algorithms work. Finally the presentation will end on some examples of when algorithms were implemented and had some unintended consequences.

We-Do (6 minutes): Teacher and student will watch a video on the ethical dilemmas that need to be resolved regarding self-driving cars. A short discussion regarding the similarities between the issues presented in the video, and the do-now will be mediated by the teacher. The teacher will continue to probe student thought by asking “what does it mean for our future if these are the decisions that algorithms must make?”

You-Do (32 minutes): Students will write a 2 paragraph response to the following questions:

1. What is an algorithm?
2. How is an algorithm a good tool for the issue your article is about?
3. What are your general thoughts on the use of algorithms in your article?
4. How can this affect you?
5. Is it ethical for companies to use an algorithm to make decisions on you?

Students will have a graphic organizer presented to them to help them write their responses.

Exit Slip: Students will share one thing that they learned to the person next to them about how algorithms are affecting their lives.

Standards:

1. **9-12.IC.5- Describe ways that complex computer systems can be designed for inclusivity and to mitigate unintended consequences.**
2. **9-12.IC.7- Investigate the use of computer science in multiple fields.**