Teacher Guide

girls4tech

Concept

A.I. can process massive amounts of data in a millisecond. While A.I. can fight fraud, protect identities and help businesses run more efficiently, it can also power social good. If we understand some of our toughest and most complex social problems more clearly, we can create more effective solutions.

Help students understand that:

- The world is confronted by big challenges.
- Data can support and clarify our understanding of complex problems.
- A.I. helps us interpret and respond to everchanging data in real time.

Step-By-Step Instructions

Page 1

Teacher: *We know that today's world faces many challenges. Take a look at some of the ideas at the top of the page.*

Have students read and discuss. Then have them circle the issues that concern them most.

Teacher: ***Data*** *can help us better understand these complex issues and design more effective solutions. And* ***Artificial Intelligence*** *(A.I.) has the power to collect and analyze data in the blink of an eye.*

Elicit discussion on the term **Social Good.** Have students share their understanding and priorities for social good.

Teacher: *Let's see how we can use A.I. for* ***Social Good.*** *Imagine* ***Our City*** *has been hit by a storm.*

Direct students to the photos and discuss.

Teacher: *It looks like we already have a plan.*

Have one student read the plan at the bottom of the page aloud.

Page 2

Direct students to the map on page 2. Help them orient to the grid structure and the places mentioned on page 1.

Teacher: *But wait! It looks like we have some more data coming in.*

Have students read the orange and blue data sets and discuss. Then direct them to write the KEY WORD in the appropriate quadrants.

Teacher: *What does this data tell us? Will our plan work?*

Direct students to respond to the question on their page. Then discuss.

Page 3

Teacher: *We can see that our original plan won't work due to flooding and high winds.*

Direct students to cross out the trucks on their maps.

Teacher: *Let's collect more data. Here we have data from the Electric Company, the Transportation Department, Mobile Phone and Credit Card companies.*

Have one student read through each set aloud. Then direct students to label the appropriate quadrants on the map with the KEY WORDS.

Teacher: *Now let's look at our maps with all of the data plotted. What does it tell us?*

Lead students in a discussion of the questions that begin "Can you see?"

Teacher: *Where should we send our trucks?*

Elicit discussion. Lead students to the realization that the shopping center at A-3 is the best location. Roads are open. Power is on. And many people are there.

Teacher: *But data is always changing. What if we get new data in the next few minutes?*

Discuss the power of A.I. to analyze and respond to data in the blink of an eye.

Teacher: *Congratulations! You are now a G4T Data Scientist!*