Mastercard G4T Video Topic Series

Discovery Education has partnered with Mastercard to empower girls with STEM learning through its signature education program, Girls4Tech™. The newest elements of the program provide middle and high school girls with access to career exploration tools, videos, and classroom activities that focus on cybersecurity, fraud, and biometrics. Through a diverse offering of free, curriculum-aligned resources, young people can begin to learn how to solve the problems that matter to them using the technology that is familiar to them.

ABOUT THE VIDEO SERIES

Throughout the Mastercard G4T three-part video Topic Series, students will explore cybersecurity, fraud, and biometrics firsthand. Each episode in the series highlights elements of using technology, featured careers, and the "must know" information about the topic. Using Mastercard's Girls4Tech™ core series as a foundation, these Topic Series videos and accompanying activities tie together the theme of cybersecurity.

CLASSROOM USE

Each video in this three-part Topic Series is accompanied by a classroom activity. The activities, which are 45–60 minutes in length, are designed to bring students into the world of cybersecurity. Students use the videos as inspiration to work through the various activities and hands-on experiences.

Each activity is presented using the following sections: Engage, Learn, Apply and/or Challenge, and Reflect.

- **Engage**: Students will be guided through an opening explanation or discussion that introduces them to the video's main concepts.
- **Learn**: Students will view the video and learn the focus concepts more fully.
- **Apply**: Students are provided with the opportunity to apply their learning to a unique, real-life situation.
- **Challenge**: Students will take the topic a step further by collecting data, using concepts to fulfill standards, or making predictions based on their experience.
- **Reflect**: Students summarize and reflect on their learning.

Each video and accompanying activity focuses on an element of cybersecurity that will lead students to responsible technology use.

VIDEO & ACTIVITY OVERVIEWS

Video & Activity 1: Cybersecurity

The first video presents a story looking at four main points of Cybersecurity (encryption, encryption keys, algorithms, and tokenization). Students will read another story—the story of a selfie—before analyzing the risks associated with uploading material.

Video & Activity 2: Fraud

This video reinforces that in addition to data, it takes intuition and the ability to draw conclusions to detect potential Fraud. Students will collect data from classmates, see how an algorithm turns that information into a data cluster, and then analyze the data looking specifically for "outliers"—the things that do not "fit"—before discussing what conclusions can be drawn regarding fraud.

Video & Activity 3: Biometrics

The final video presents an introduction to the various kinds of Biometrics and the roles of digital language and binary code. Students will learn why fingerprints are an effective biometric technique before collecting and analyzing their own fingerprints.