Title: Rutgers University Virtual Classroom Visit: Q&A with Undergraduate Computer Scientists

Lesson Objectives:
By the end of the lesson, students will be able to:
- better understand both the challenges and excitement of the technology industry
- discuss the lack of diversity in the tech sphere and the need to increase it
- cite examples demonstrating the use of technological knowledge as a tool for a wide array of interests

Teaching/Instructional Method:
- Students will join a Google Hangout session with a 2-3 person panel of undergraduate computer science major from Rutgers University

Instructional Materials and Resources needed
- projector and screen
- reliable WiFi connection
- HDMI cable
- Google Hangouts/Skype permissions on school network

Warm-Up / Anticipatory Set
• Before the Virtual Classroom Visit, students will have filled out the anonymous pre-panel survey detailing demographic information and initial interest and knowledge of the tech industry
  ▪ Survey can be found here: https://docs.google.com/forms/u/1/d/1exM9c2OoGhnN1qHEYzq2qius8yFcMX1U0Orm2SbY5i8/edit?usp=sharing
  ▪ Students will have prepared 1-3 questions each to ask the panelists. Sample questions might include:
    ▪ What does a day in the life of a programmer look like?
    ▪ Is coding as difficult as it looks?
    ▪ Why is it important to be tech-literate if I’m not interested in working in the technology sector?

Phase 1: Presentation (00:00 - 00:15)
- Panelists initially will not have video enabled
Panelists will ask students what the class thinks they look like.

- Students will describe both physical and personality attributes of a technologist to panelists
  - Panelists may prompt students for certain traits
    - What gender am I?
    - What race am I?
    - How old am I?
    - How long have I been programming?
    - What do I do other than coding?

- Once the sketch is finished, panelists will enable video and introduce themselves - name, class year, and how they first got into coding, and discuss with students how accurate or inaccurate their initial conceptions were

- Panelists and students will discuss media and societal influence on who goes into tech
  - Silicon Valley television show
  - Hidden Figures movie
  - Marketing for children’s toys

- Students will be invited to share with panelists and classmates why they may not be interested in coding or technology

- In response, panelists will discuss their own experiences with the student’s challenges or hesitation, and correct misconceptions if applicable

- Panelists and students will discuss the urgent need for diversity in the tech sphere, and provide examples of the benefits of a diverse workforce
  - Data Mining (Machine-Learning generated ads which prey on specific demographics)
  - Product viability (new iPhones are too large for women to use comfortably)
  - Thought diversity (effects of groupthink)

**Phase II - Guided Practice & Collaboration (00:15 - 00:35)**

- Q & A: students will be invited to ask the questions they prepared for the panelists
  - Panelists will share their experiences in the industry and provide examples of tech giants who don’t fit the mold
Phase III – Assessment (To be completed after the VCV)
- Students will fill out the anonymous post-panel survey after the call, reflecting upon their changes in perception (or lack there of) of the tech industry
  - survey can be found here: https://docs.google.com/forms/u/0/d/1eyg31jSojF68418eOje8Kd9_w2OoQORsoYF8cnQptn8/edit?usp=forms_home&ths=true

Wrap-Up / Review and Connections (00:35 - 00:40)

- Panelists will point students toward free resources they can utilize if they’re interested in learning more or learning to code