

## LESSON PLAN

### **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/1exM9c2OoGhnNIqHEYzq2qujs8yFcMX1U0Orm2SbY5i8/edit?usp=sharing>
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- 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 I: 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
  - o 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](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