



Y-CITYSCI: A Youth-Led Citizen Science Network for Community Environmental Assessment
Introduction to Nature of Science and Citizen Science: Lesson 6
Grade Level: Middle school
Duration: 1 hour

Guest Scientist 1

Next Generation Science Standards

Disciplinary Core Idea ESS3.C: Human Impacts of Earth Systems

Science and Engineering Practice 8: Obtaining, Evaluating, and Communicating Information

Objectives

- 1) Students meet an environmental scientist and discuss the concepts of that scientist's research.
- 2) Students will recognize the tools used to conduct that research and their purpose.

Materials

- Tablets (1 per drone)
- Drones (1 per 2-5 students)
- Guest scientist (geography expert that specializes in research using drones)

Activities

Bellringer: Discuss class expectations when we have a guest and give a brief introduction for the guest scientist. (5 minutes)

Guest Lecture and Activity: Have the guest introduce themselves, their research, and the scientific tools and instruments they use during their research (such as drones). Have them give a demonstration of how to use them. Break students into groups and go into a gymnasium or outside to practice using the drones. (45 minutes)

Discussion: Have class return and discuss what they liked and did not like about using the drones. Have students write down ways that drones can be used to collect various forms of scientific data in their community. Discuss these uses and how it relates to surveying landscape and identifying landscape quality and how humans have altered natural landscape. (10 minutes)

Resources: DJI TELLO - Tutorial and Quick Review- <https://youtu.be/pn84aprnqkA>

