

Spatial Gradients of Key Meteorological and Air Quality Variables in NYC

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Goal

Map spatial variability in air temperature, humidity, and particulate matter in NYC neighborhoods.

Methods

Students will use 3 methods to observe the environmental data:

- Drone fitted with sensors
- Backpack sensors
- Public data

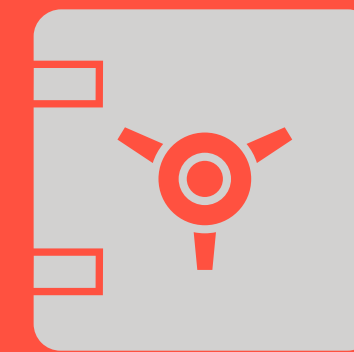
They will use GIS|Python to conduct the analysis.

Tasks



Conduct field surveys in parks and other common areas using a drone fitted with sensors.

Multiple walks through different neighborhoods to sample street-level variability in key environmental variables.



Use public networks to download data on local weather and air quality

Outcome

Students will ...

...learn how to use sensors to monitor local microclimate.

...Use a programming language to study the variability in local microclimate

...present their findings through posters and keynote to public.

SCIENTIFIC

ANALYTICAL

COMMUNICATION