How can GIS data be used at different scales?
What different ways can field data be collected and integrated?
How has field data collection evolved?

GEOGRAPHIC QUESTIONS:
- How can GIS data be used at different scales?
- What different ways can field data be collected and integrated?
- How has field data collection evolved?

RELATED GEOGRAPHY CAREERS:
- Logistics Analysts
- Geographic Information Systems Technologists and Technicians
- Urban and Regional Planners

INTERVIEW DIGEST: NIKOLAS SMILOVSKY
“I deal with every type of individual, organization, or entity that completes geospatial field data collection. The amount of technology and science that Bad Elf works and integrates with is expansive. We help so many efforts out around the world. Let’s just say, if you don’t have good geospatial data, you won’t complete good work.”

APPLICATIONS:
- Examine the accessibility of field data collection
- Use free software to create different themed inventories

Photo: A wildlife land bridge crosse over a freeway

Photo: Nikolas Smilovsky collecting data
LESSON ACTIVITY EXAMPLE:

- Have students complete a field data collection inventorying trees on the grounds of the high school and map them using QGIS. Then explore the possibility of accurately mapping other themes at the school e.g. fire extinguishers, bathrooms, trash bins, vending machines, exits, etc.
- Have students read through this case study and do their best to explain the process back in a one-page summary identifying the issue, solution, and results.

GLOSSARY:

LATITUDE/LONGITUDE  ELEVATION VALUES  UTILITY LOCATORS  RANGEFINDERS  LIDAR

SKILLS:

- ArcGIS, QGIS
- Remote Sensing
- Geographic information systems (GIS)
- Computer aided drafting and design (CADD)
- Drone work

BACKGROUND RESOURCES:

- Field collection with QGIS app
- Map a single set of coordinates in QGIS

DATA:

- Field collected latitude and longitude coordinates
- Elevation values
- Aerial imagery
- Point clouds
- Temperature readings
- Light Spectrum

Photo: San Diego's urban sprawl