

Field Studies by Middle School Students Using Digital Trail Cameras



A MMSA-sponsored project

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Brainerd ISD #181

Getting Started

Moultrie Game Spy D-55IR
game camera

- 5.0 megapixels
- Rapid response time
- 50-foot flash
- Infrared (IR) sensor for immediate game capture
- Easy-to-read photo strip
- Temperature, moon phase, time, date, and camera ID
- Color day photos & video clips
- Infrared night photos & video clips
- LCD menu-driven display
- Picture delay and set (1 to 60 minutes)
- Multi-shot photos
- 5 seconds between multi-shots
- 3 photo and 2 video resolutions
- SD Memory Card slot
- Weather-resistant casing, USB cable, mounting strap
- Operates on C-cell batteries





My workplace:
 A school, a forest, a
 field study site, a
 wildlife habitat

Reasons

- Get outside for health, fun, learning.
- Meet state science standards.
- Incorporate current technology to collect real data.
- Motivate and engage students.



Ideal projects:

Student-designed

Original “real” field research

Get some results!

Involves the entire class

Uses “cool tech”

Possible?



(Student) Science Research Proposal

By (your name): _____

Equipment available: 3 remote digital trail cameras (rechargeable batteries, memory cards)

Study area: Dean Makey School Forest, Baxter, MN

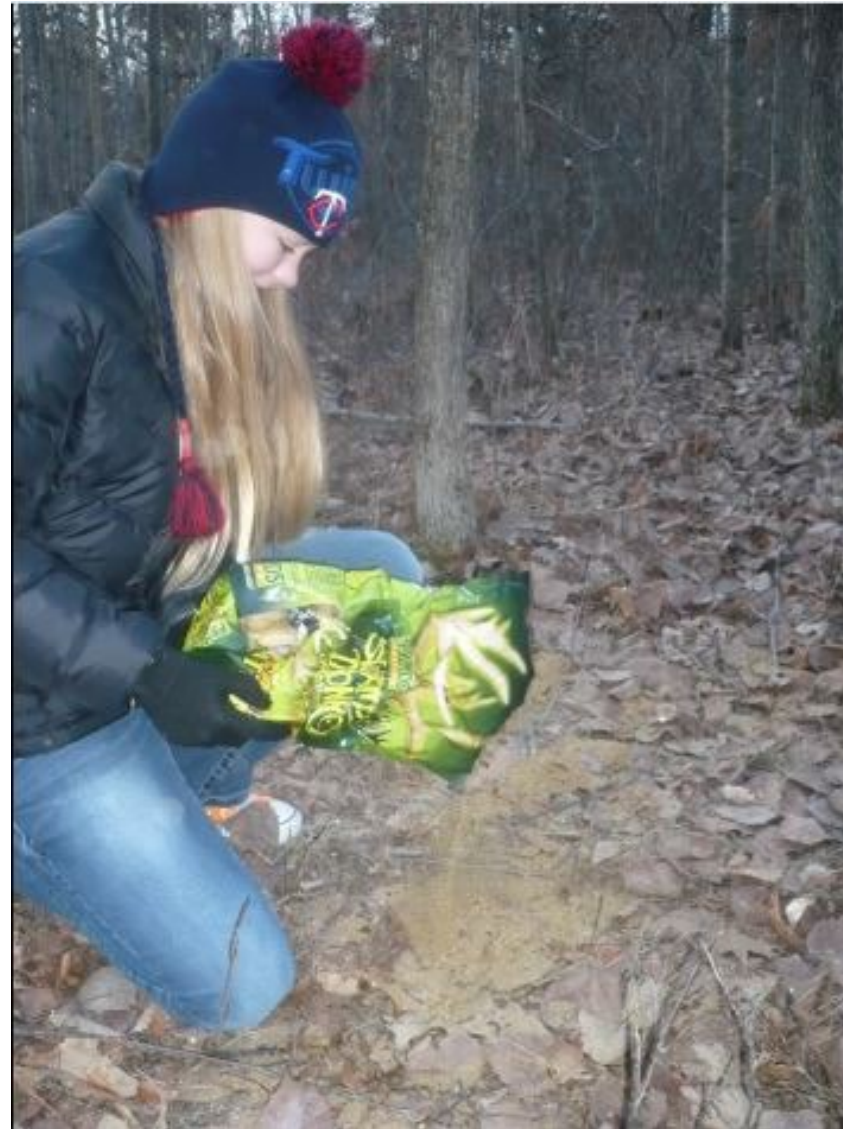
Title of project: _____

Project purpose: Describe an outdoor research project using trail cameras. What questions would you seek to answer and/or what information would you try to collect?

Methodology: Describe how the project would be set up and carried out. What is the timeline for the work? What equipment is needed? What, where, and how is data to be gathered?

Awesome student ideas!

- Animal surveys
- Location/habitat differences
- Scent effects
- Food attractants
- “Scarecrow student” effect
- Day/night animal active times



Implementation:

Thank you to MN DNR, TAO, and Shutterfly!

Challenges (2013):

- Google docs and spreadsheets
- Shutterfly email and district web block
- Managing student digital work
- Safety concerns



Next steps:

- Conduct new studies.
- Collaborate with other schools.
- Incorporate digital video captures.
- Increase number of students involved.
- Collect/save longitudinal data sets.



Thank you!

<https://sites.google.com/isd181.org/deanmakeyschoolforest/home>



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