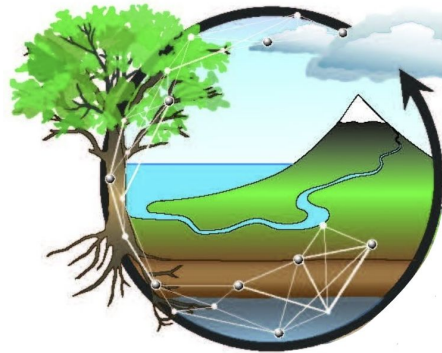


# Urban Critical Zone Data Jam

**Webinar #3: Effective Communication of a Data  
Story**

**Thursday, March 20, 2025 6:00-7:30 p.m. EDT**



**Critical Zone  
Network**  
Urban Cluster

# Hello & Welcome!

**The Urban  
Critical  
Zone  
Education  
and  
Outreach  
Team.**

**Angie Hood**  
Education Program Leader  
Cary Institute of Ecosystem Studies



**Alan Berkowitz**  
Head of Education  
Cary Institute of Ecosystem Studies



# Tonight's Objectives

## Goal of the Urban Critical Zone (UCZ) Data Jam

Promote data literacy using real, local datasets collected by researchers along the Fall Zone.

### Objectives of tonight's webinar

Participants will learn about ways that they can support their students to produce creative representations of their UCZ data stories. During the webinar, participants will:

1. Understand the important foundations of data storytelling.
2. Explore student work from past Data Jam competitions.
3. Learn about resources available for creating unique expressions of data reporting.

# What is Data Literacy?

NCES defines data literacy as:

“[...] the practice of examining and understanding data to draw and communicate conclusions and make decisions.”

# What is Data Literacy?

A data-literate individual can...

1. **Read data** (interpretation and analysis)
2. **Work with data** (data collection and compilation)
3. **Communicate information found within the data** (effectively sharing the “data story” in order to inform others of important information found in the data)
4. **Reason with data** (use the data to make decisions)
5. **Critique data-based arguments** (evaluate claims that are, or should be, supported by sound data analysis and interpretation)

# Why Focus on Data Literacy?

**Data literacy can lead to simple and effective solutions to real world problems.** Data provides a common language through which those who are data literate can hold effective, data-driven conversations that will allow them to make informed decisions and take action based on cause and effect relationships evident in and explained by the data.

# Tonight's Agenda

## What to expect tonight

1. Welcomes and objectives
2. Quick review:
  - a. Webinar #1: The UCZ Data and CODAP
  - b. Webinar #2: Understanding, Interpreting, and Analyzing the Data
3. Communicating the Data Story
  - a. Setting the stage: Connecting the scientific report and creative piece
  - b. Creative Project dos and don'ts
  - c. Exploring examples of student pieces
  - d. Guided tour of available resources to help your students
4. What's next?
5. Optional Q&A
6. Adjourn



# The UCZ Data Jam Webinars #1 & #2

## Urban Critical Zone Data Jam Competition

Getting Started: UCZ Advisor  
Resources

UCZ Data Jam: Essentials &  
Registration

UCZ Datasets

UCZ Data Jam: Important

Documents

Data Jam FAQs

We've gathered the following resources to help you on your journey.

- **Data Jam Essentials** is an overview of the contest and complete contest information.
- We have a special “advisors-only” Google Drive Folder with sample graphs for most of the datasets. Please email us to receive access.
- We asked veteran Data Jam coaches to share their advice. Read their **tips** on how to jam.
- We will be hosting a three-part webinar series designed to support you and your students as they embark on their Data Jam journey. If you are unable to attend a scheduled webinar, a recorded version will be linked below. Additionally, you may find **recorded webinars** from our sister Data Jam—the Hudson Data Jam—useful.

- **UCZ Webinar #1:** Working with the data & introduction to CODAP
  - Supporting **slide deck** used in webinar, includes links to additional resources.
- **UCZ Webinar #2:** Data analysis & visualization
  - Supporting **slide deck** used in webinar, includes links to additional resources.
- **UCZ Webinar #3:** Effective communication of a data story (Recording available March 24-28)

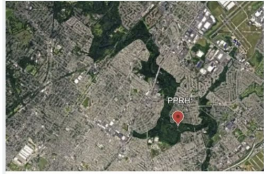
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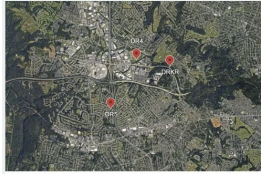
# The UCZ Data Jam Webinars #1 & #2

## UCZ Data Jam Webinar #1

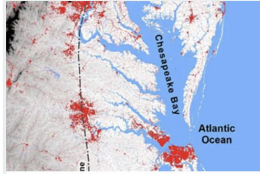
A brief intro to the featured datasets from three UCZ researchers



Anions in the Pennypack



Greenhouse Gases in Dead Run



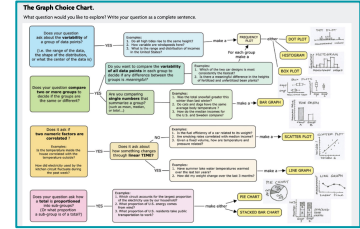
Stream Chemistry Across the Fall Zone

Intro to CODAP drag-and-drop data analysis.

id	Brand	Type	Calories (Bar)
1	Cif Bar and Comp.	Chocolate Chip	190
2	Heigel Inc.	Sweet & Salty	160
3	Creal Value	Almond	170
4	Target	Sweet & Salty	160
5	Farmly Outlet	Sweet & Salty But	170
6	Schmuck Markets	Peanut Butter Chocolate Ch.	100
7	AMAZON	Real Fruit	160
8	KIND	Peanut Butter Berry	100
9	Essential Everyday	Oats & Honey	190
10	360 Everyday Value	Blueberry Vanilla	190
11	Niut	Chocolate Chip	100
12	Envirokidd	Strawberry	100
13	Albino	Peanut Butter	210
14	Sunbelt Bakery	Chocolate Chip	140
15	Special K	Dark Chocolate	110
16	Annnars	Peanut Butter Chocolate Ch.	100
17	Cascadian Farm	Dark Chocolate Cranberry	140
18	Bakery On Main	Peanut Butter & Jelly	190
19	Shufine	Oats & Honey	190
20	Big Y	Sweet & Salty	170
21	Market Pantry	Dipped Carmel Apple	130
22	Simply Balanced	Apple Berry	90

## UCZ Data Jam Webinar #2

Getting started with the data - how to help your students find a research question and a data visualization to go with it.



Using our data visualization to:

1. Understand the data  
*What information do I have?*
2. Interpret the data  
*What do I see in the graph?*
3. Analyze the data  
*What does it all mean?*

Writing the report! Student resources to organize the process.

# Reminder: The UCZ Datasets

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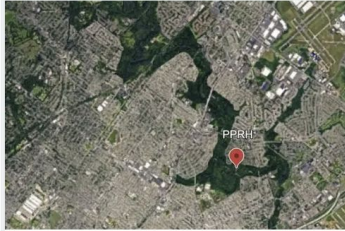
UCZ Data Jam: Important

Documents

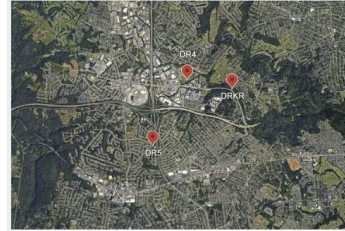
Data Jam FAQs

[bit.ly/UCZDataJam](https://bit.ly/UCZDataJam)

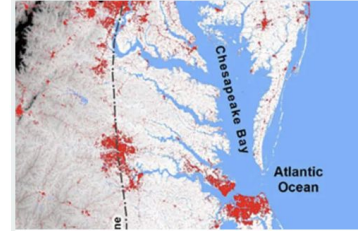
## Datasets



Anions in the  
Pennypack



Greenhouse Gases in  
Dead Run



Stream Chemistry  
Across the Fall Zone

Each dataset includes:

1. A brief introduction to the UCZ project and specific dataset
2. A metadata page in the workbook
3. The dataset
4. Maps of the watersheds (satellite, MRLC, USGS watershed basin)

## Setting the Stage...

**The foundation of any amazing creative project is a strong written report!**

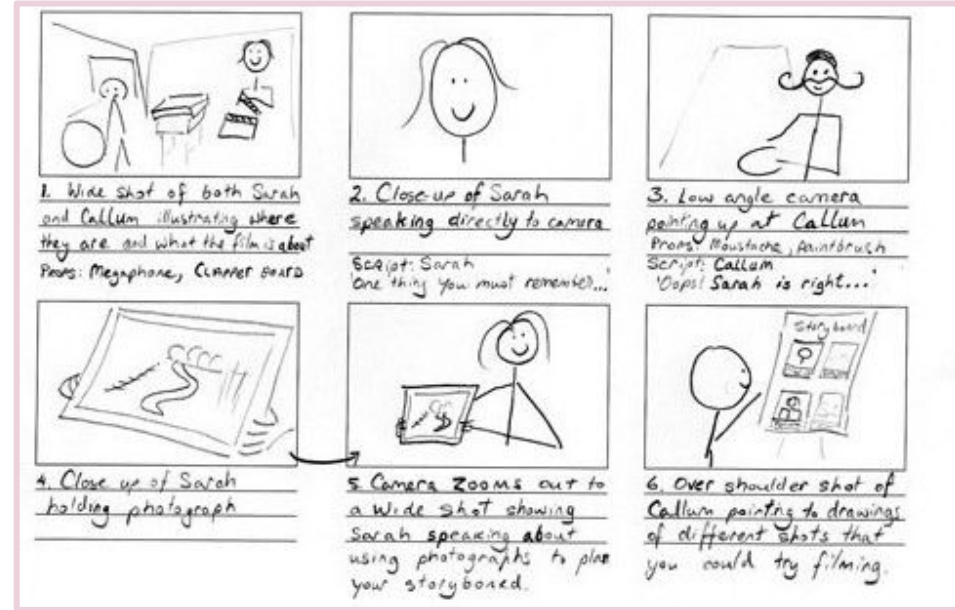
Students tend to be very excited about the Data Jam creative project, and may see the written report as just an obstacle standing in between them and the rip-roaring good time that is unbridled creative expression...

# Setting the Stage...

..but every artist drafts a plan for their expression in some way. To tell an amazing story, you first need to know the story!

Encourage your students to think of the written report as the storyboard that will support their creative endeavor.

The next two slides list some dos and don'ts to share with your students.



## Creative Project dos...

- Do make sure to center the data visualization in your creative piece!
- Do include a list of characters, if your Creative Project is a skit.
- Do include a script or captions if your creative piece is dependent on spoken (or sung) word.
- Do add a description or key for any color-coding or other abstract representations, if your Creative Project is dependent on color or auditory representation.
- Do include a narration of the rules, or a recording of an implementation of any games or structured interactives that support your Creative Project.

## Creative Project don'ts...

- Don't forget that your data is the star of the show - be sure that your Creative Project is focused on the data!
- Don't submit your Creative Project without reviewing it one last time!
- Don't forget to include a Creative Project summary in your written report (*see the Guide Book for more information*).
- Don't go over 5 minutes in your video submissions.

# Creative Project Dos and Don'ts

**Do always remember:** your audience isn't in your brain, so they won't have all of the background or details that you have. Ask yourself what you need to include to make sure you get your point across to your audience.





# Past Student Data Jam Creative Projects

The following link will take you to the Hudson Data Jam (HDJ) student projects that were featured during the webinar. For more projects, visit the HDJ Project Gallery!

## [The Life of an Eel](#)

2022 HDJ Middle School Overall Winner

## [Lyme Disease Connections](#)

2023 HDJ High School Level 2 Runner Up

## [Salt Pollution in the Hudson River](#)

2022 HDJ Middle School Level 2 Winner

## [The Importance of Oxygen](#)

2022 HDJ High School Level 3 Winner

## [Precipitation's Effect on Lyme Disease](#)

Special Prize: Central Hudson Award for Extraordinary Creativity 2022 (MS)

[Hudson Data Jam Project Gallery](#)

# Readily Available Resources

## Urban Critical Zone Data Jam Competition

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Scroll down  
to find...



### Artistic support

As with any internet resource, it is always recommended that the adviser reviews materials before sharing them with students.

**Need data visualization inspiration? Check out these scientist-artists who incorporate data stories in creative ways.**

- [Jill Pelto](#) - Jill's art focuses on climate change; she utilizes color pencil.
- [Dear Data](#) - "Dear Data is a year-long, analog data drawing project by Giorgia Lupi and Stefanie Posavec, two award-winning information designers living on different sides of the Atlantic."

### Apps

- [Krita](#) - This is a free, open-source downloadable app which allows students to create digital masterpieces.
- [Procreate](#) - This is a paid app for digital painting, drawing, & animation.
- [Canva](#) - This app is especially great for infographics and other visual content.

### YouTube

- [Science Filmmaking: Tips & Tricks](#): The stop-motion video on this YouTube channel is great!
- [Proko](#) - YouTube videos for how to develop sketching skills
- [Art Assignment](#) - Engaging episodes about art and history that can spark creativity!
- [Crash Course](#) - These aren't how-to videos, but these educational videos are good models for excellent communication and creativity.

[bit.ly/UCZDataJam](https://bit.ly/UCZDataJam)



# What's Next?

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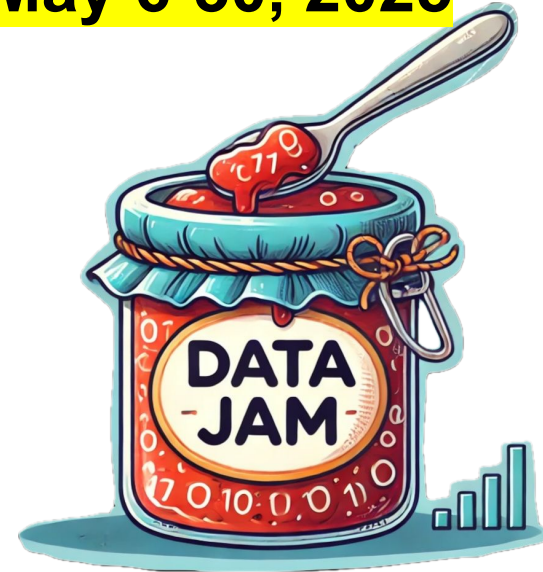
UCZ Data Jam: Important  
Documents

Data Jam FAQs

REGISTER

- **UCZ Data Jam Competition Registration - due April 4, 2025**
- **UCZ Data Jam Competition Project Rolling Submission - May 6-30, 2025**

Click that beautiful blue button on our [UCZ Data Jam Competition webpage](#) to register your students!



# Thank you!

**Angela Hood**

Education Program Leader - Cary

Institute of Ecosystem Studies

[hooda@caryinstitute.org](mailto:hooda@caryinstitute.org)

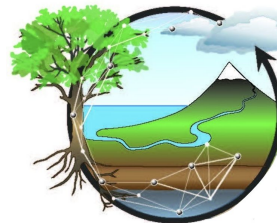
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**THANK  
YOU**