

MY YEAR IN DATA

Observation, Communication, and Science Storytelling

8th Grade Science | 2018 AZ Standards

ARIZONA SCIENCE STANDARDS

Dimension	Key Focus Areas
Practices (SEPs)	Analyzing and Interpreting Data; Obtaining, Evaluating, and Communicating Information; Using Mathematical and Computational Thinking
Concepts (CCCs)	Patterns; Cause and Effect; Scale, Proportion, and Quantity; Systems and System Models.
Core Ideas	U1: Explaining phenomena using evidence from observations.

LEARNING TARGETS

- ☐ I can collect accurate data about my life and the world around me.
- ☐ I can develop a method for recording my data.
- ☐ I can identify patterns and trends within datasets.
- ☐ I can create an original visualization to communicate data.
- ☐ I can interpret and critique data visualizations.
- ☐ I can reflect on bias or limitations in data collection.

WHAT IS "DEAR DATA"?

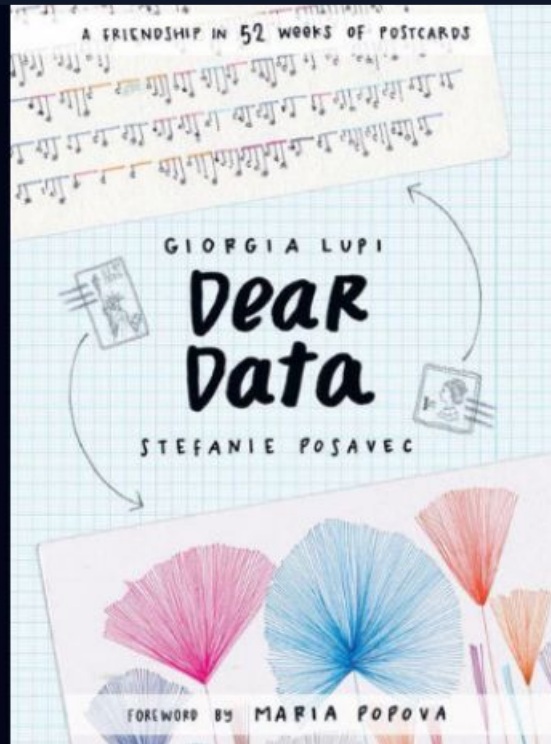
Our Inspiration for Scientific Storytelling

ARTISTIC DATA SCIENCE

Beyond the Bar Graph

Following the examples from this book, we will treat data as a **creative material**.

Instead of simple charts, we will use symbols, color, and layout to communicate our own experiences.



THE MONTHLY PROCESS

OBSERVE

Focus on one specific topic for a full week.
What do you notice?



COLLECT

Record your data accurately as it happens in your notebook.



CREATE

Design your artistic visualization and build a "Secret Key."

PROJECT TIMELINE



Days 2-8

Active Data Collection (Daily)

Days 10-11

Sketch & Final Artistic
Visualization

Day 1

Topic Reveal & Recording Sheet
Design

Day 9

Analyze Totals & Find Patterns

Day 12

Gallery Walk & Class Critique

VISUAL SECRETS

The Power of the Key

In this project, every dot, line, and color has a specific meaning. Your "Key" or "Legend" is the secret code that allows your audience to decode your story.

Without the key, it's art. With the key, it's **data science**.



THE BIG PICTURE

12
DATASETS

Your Year in Review

By the end of the year, you will have 12 unique artistic datasets representing your 8th-grade journey.

This portfolio will showcase your growth in observation, creativity, and scientific communication.

GETTING STARTED: WEEK 1

What counts as data?

Anything that happens! Complaints, laughs, phone checks, bird sightings, or doors you walk through.

How to record it?

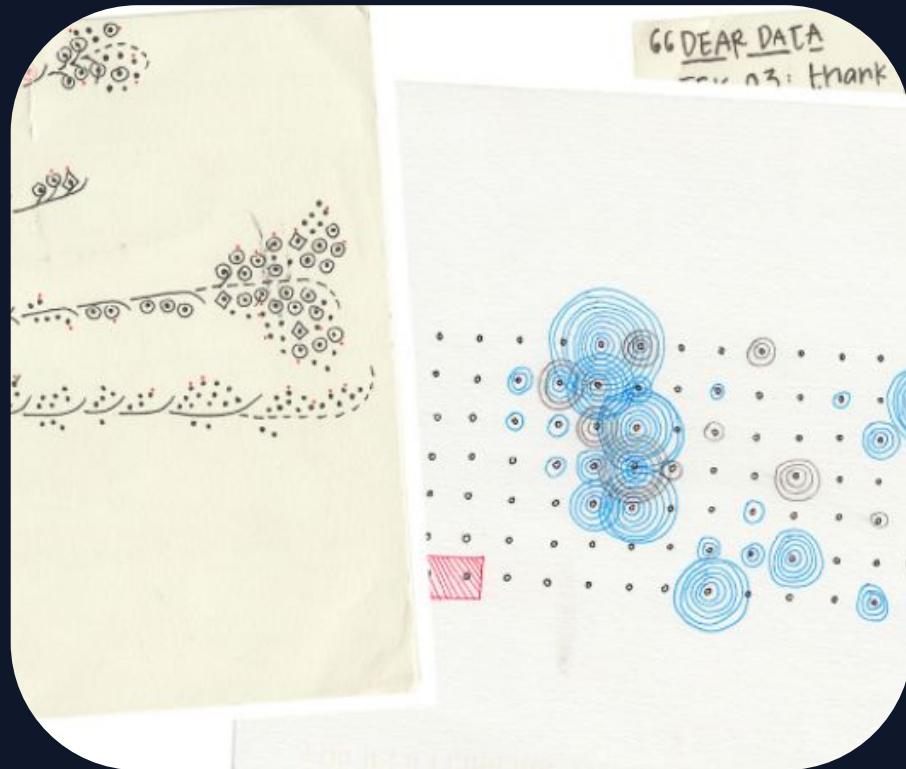
Design a tracking sheet that works for you. Consistency is the most important part of science!

Day 1: What is "Dear Data"?

Personal Documentary

We are becoming **data storytellers**.
We won't just make graphs; we will
create symbols and art to share our
lives.

**Today's Task: Reveal our monthly
topic!**



Discussion: What is Data?



- ☐ What counts as data for our topic?
- ☐ What should be recorded exactly?
- ☐ How can we stay consistent?

Days 2-8: Data Collection

7

DAYS OF COLLECTION



Record data for 5-10 minutes daily.



Use your recording sheet instantly.



"Messy" data is valuable! Don't skip it.

Day 9: Finding the Pattern

Calculations & Trends

Total up your counts. Calculate percentages or daily averages. Look at your data as a whole system.



Discussion

"What surprised you about your own habits?"

What questions do you have now?"

Analyze patterns before we draw.

| Days 10–11: Visualization

Instructions:

1. Sketch your ideas first.
2. Create a **KEY** that explains your symbols, colors, shapes, and sizes.
3. Produce the final visualization on cardstock.

Discussion



What story does your data tell?



Would another week produce different results?



What limitations did you experience?

Day 12: Sharing Our Stories



Observe & Interpret



Critique & Question

Discussion

What worked well in your visualization?

What made it easy or difficult to understand?

How can we improve for next month?