

Ecology & Population Dynamics Data Analysis Graphing Bundle HIGH SCHOOL

THREE Graphing Activities

NO PREP - Just
download and Go!



Students use Real
World Data to create
different graphs and
answer Ecosystem
and Population
Dynamics questions.

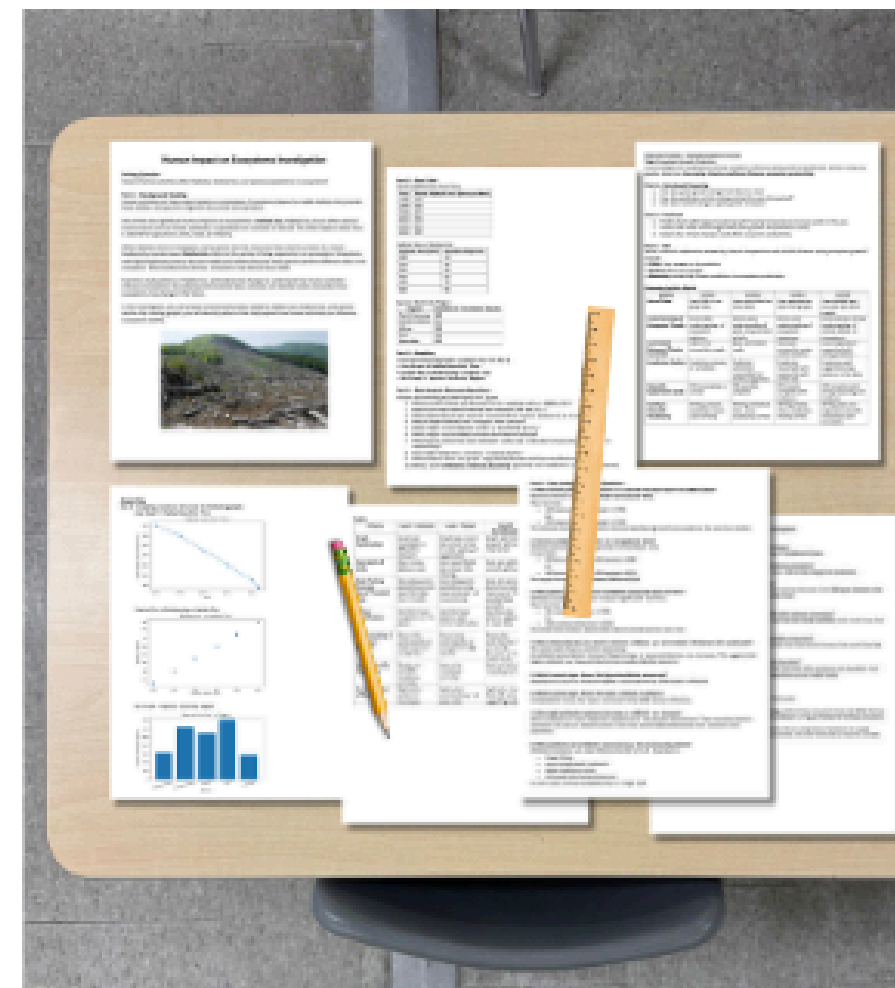
SCROLL
to take a look inside!



HOW THESE ACTIVITIES HELP YOU

- **Saves Prep Time** - Everything is pre-made, ready to go, and FULLY EDITABLE.
- **Provides Built-In Assessments** - The rubric let you quickly check for understanding.
- **Encourages evidence-based reasoning** by having students use graphs to explain how and why trends and changes occur

ANTHROPOGENIC IMPACTS ON ECOSYSTEMS & BIODIVERSITY

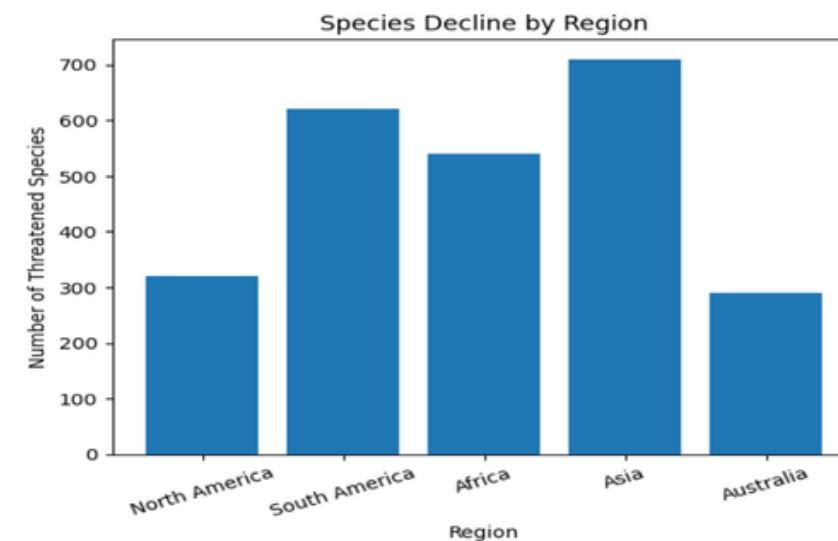
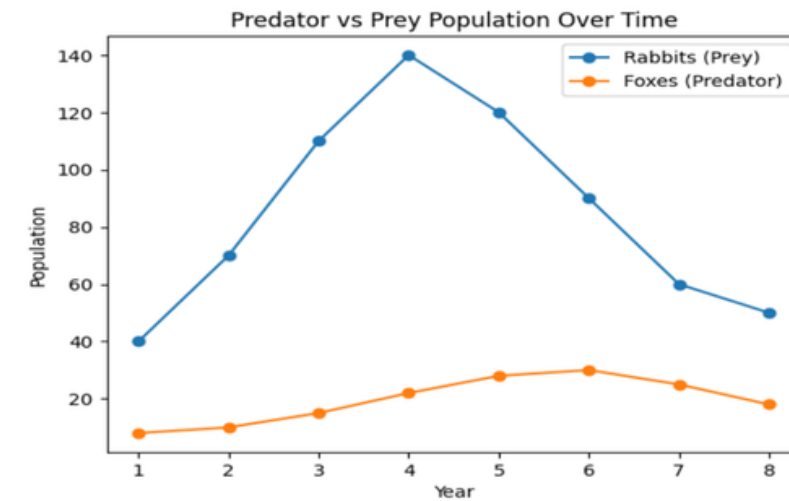
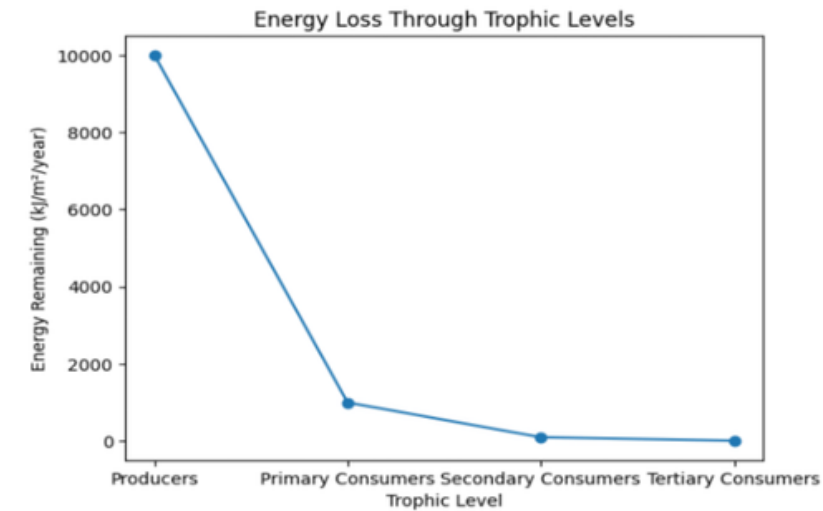


- Background Reading
- Data Tables
- Students Create Different Graph Types
- Extension Activity
- Full Marking Rubric

NO PREP or Materials

- **Three Ecosystems & Population Dynamics** science investigations that use real-world ecosystem data for students to graph and analyze
- **Multiple graphing tasks** (line graphs, double line graphs, bar graphs, and scatter plots) with data tables and analysis questions
- **Complete teacher supports** including answer keys, discussion questions, extension activities, and grading rubrics

What You Get



Energy Available by Trophic Level

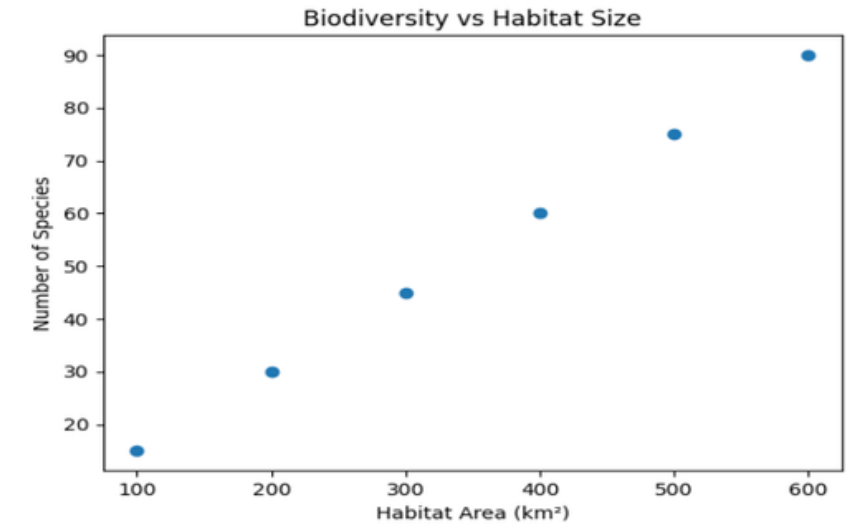
Trophic Level	Energy Available (kJ/m²/year)
Producers	10000
Primary Consumers	1000
Secondary Consumers	100
Tertiary Consumers	10

Energy Transfer Through Trophic Levels

Trophic Level	Energy Remaining (kJ/m²/year)
Producers	10000
Primary Consumers	1000
Secondary Consumers	100
Tertiary Consumers	10

Biomass by Trophic Level

Trophic Level	Biomass (kg per hectare)
Producers	900
Primary Consumers	150
Secondary Consumers	25



Rubric

Criteria	Level 1 (Limited)	Level 2 (Some)	Level 3 (Considerable)	Level 4 (Thorough)
Graph Construction	Graphs incomplete or unclear	Graphs contain scale errors	Graphs mostly accurate	Graphs accurate and well-constructed
Axis Labels & Units	Missing labels	Some labels	Most labels correct	All labels and units correct
Data Plotting Accuracy	Data incorrect	Some correct	Most correct	All accurate
Use of Provided Data	Uses little data	Uses some data	Uses most data	Uses all data appropriately
Pattern Identification	Few patterns identified	Basic patterns	Clear patterns	Detailed accurate patterns
Resource Trend Understanding	Limited understanding	Basic understanding	Clear understanding of trends	Strong understanding using data evidence
Connection to Depletion	Weak connection	Basic connection	Accurate connection	Clear explanation of how trends relate to depletion
Scientific Vocabulary	Rare use	Some correct use	Mostly correct use	Accurate throughout
Communication of Reasoning	Unclear	Somewhat clear	Mostly clear	Logical and well supported

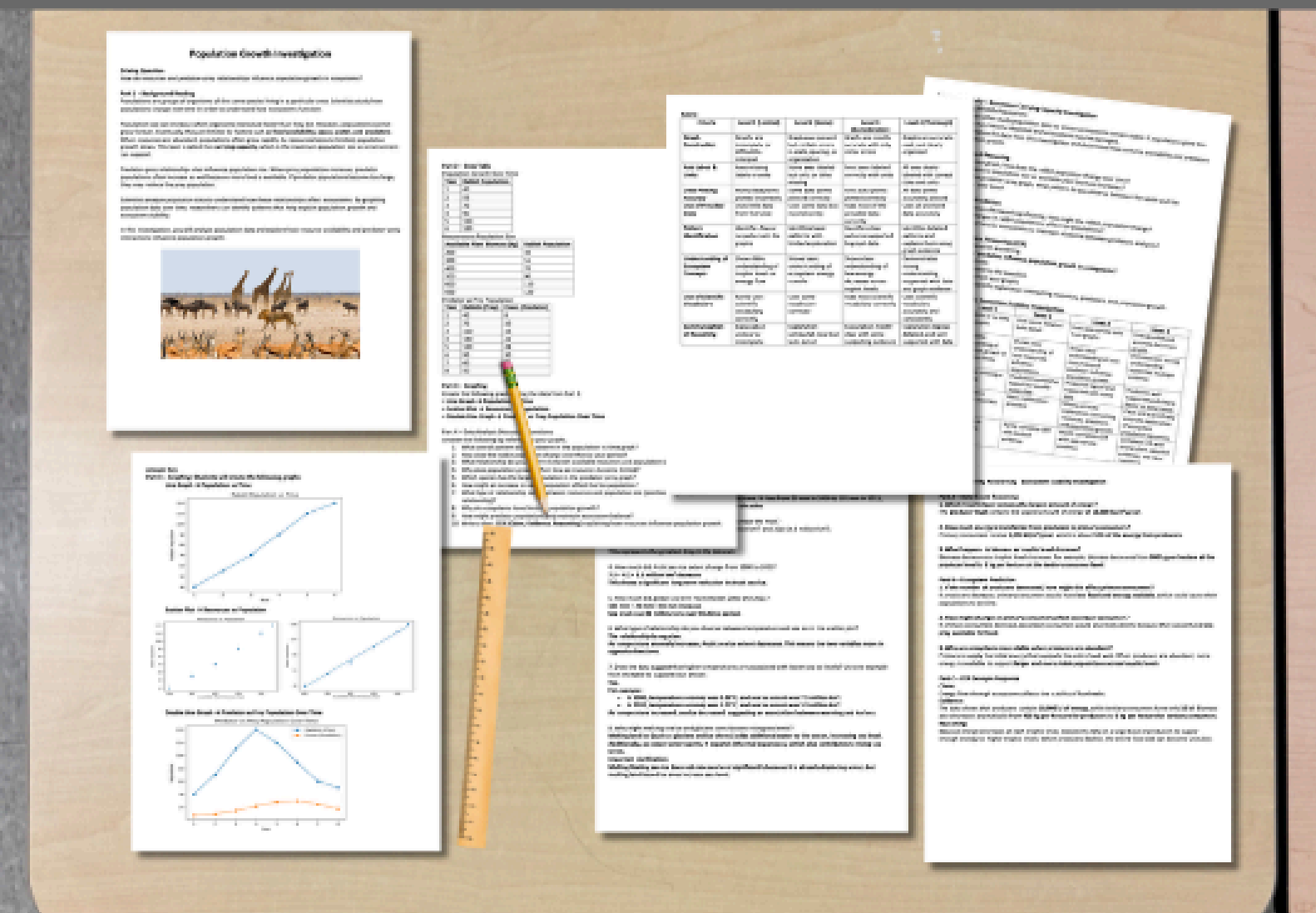
Classroom Fit Guarantee

I want you to feel confident when you purchase from Teach With Fergy. If a resource is not the right fit for your students, simply contact me and I'll provide double your purchase amount in store credit toward another resource in my store.



What Will Your Students Learn?

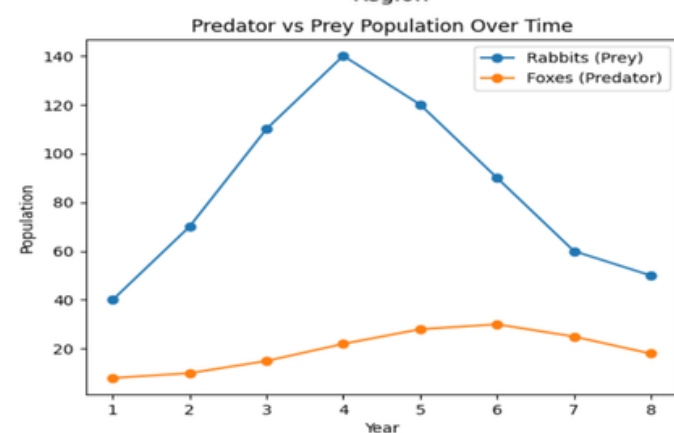
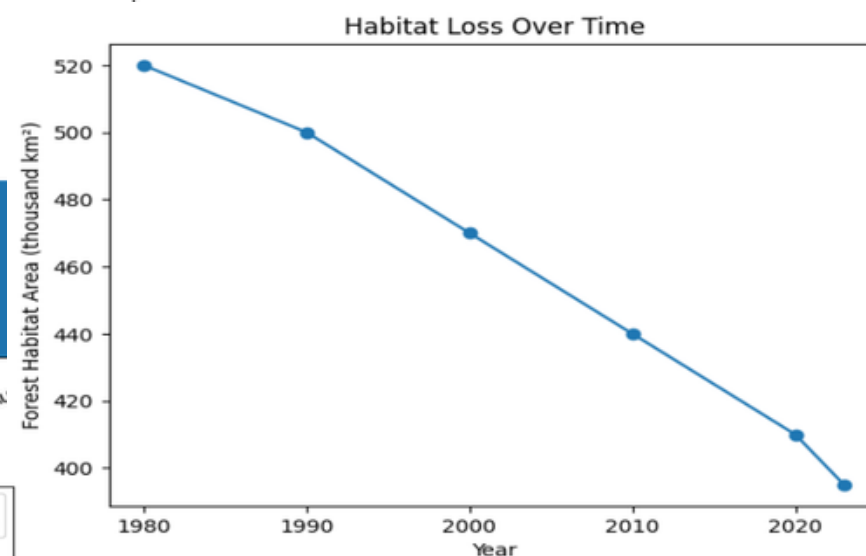
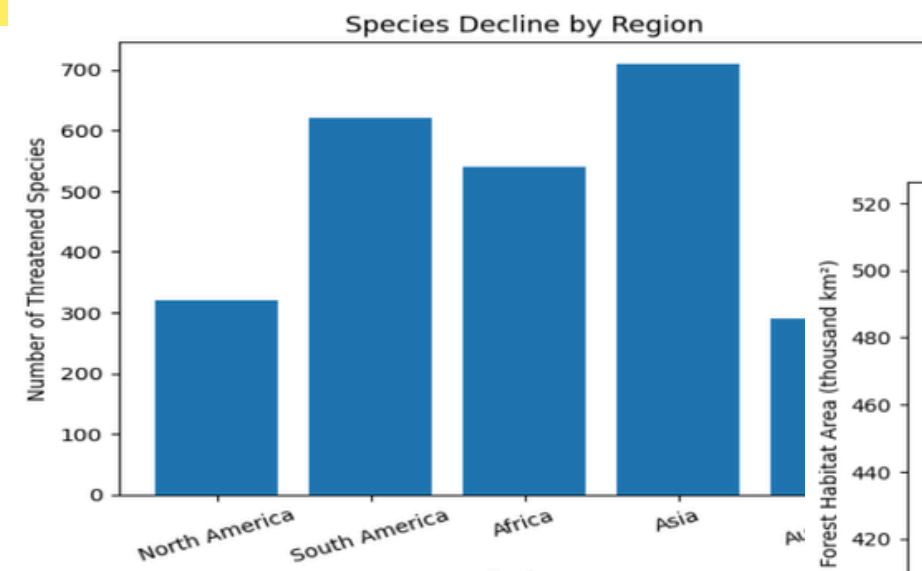
POPULATION DYNAMICS, CARRYING CAPACITY & PREDATOR-PREY



Students Use Their Graphs to Answer Questions and Draw a Conclusion

- ✓ Energy transfer through trophic levels
- ✓ Food web energy loss
- ✓ Biomass distribution in ecosystems
- ✓ Predator–prey population cycles
- ✓ Population growth and resource availability
- ✓ Carrying capacity and limiting factors
- ✓ Habitat loss and ecosystem change
- ✓ Biodiversity patterns and habitat size
- ✓ Species decline across regions
- ✓ Human impacts on ecosystems
- ✓ Ecosystem stability and conservation

What Will Your Students Learn?



Energy Available by Trophic Level

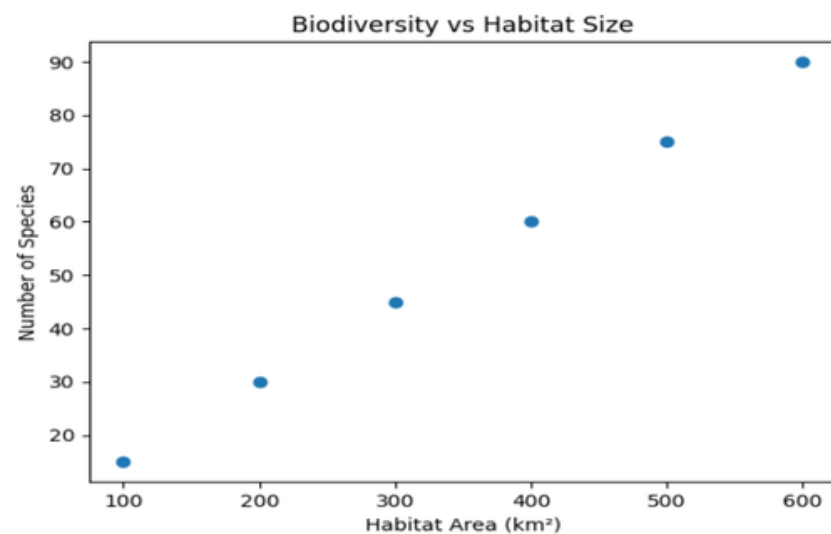
Trophic Level	Energy Available (kJ/m²/year)
Producers	10000
Primary Consumers	1000
Secondary Consumers	100
Tertiary Consumers	10

Energy Transfer Through Trophic Levels

Trophic Level	Energy Remaining (kJ/m²/year)
Producers	10000
Primary Consumers	1000
Secondary Consumers	100
Tertiary Consumers	10

Biomass by Trophic Level

Trophic Level	Biomass (kg per hectare)
Producers	900
Primary Consumers	150
Secondary Consumers	25
Tertiary Consumers	5



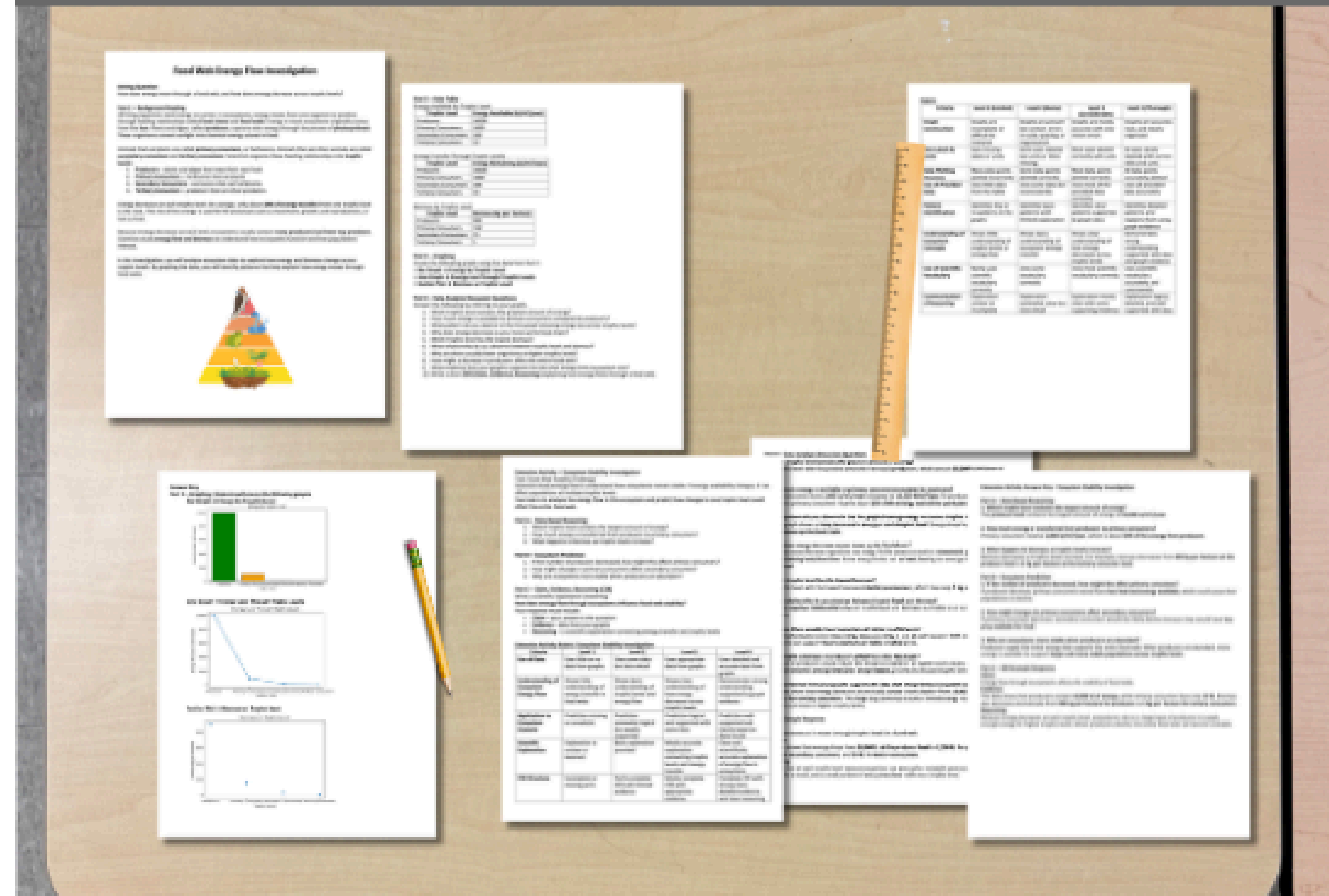
- ✓ Helps students build **graphing and data analysis** skills using real-world ecosystem and population datasets
- ✓ Supports **NGSS Science & Engineering Practices** through analyzing patterns and relationships in energy flow, predator–prey populations, habitat size, biodiversity, and species decline
- ✓ Connects **life science concepts** (such as **food webs, trophic levels, population dynamics, carrying capacity, and habitat loss**) to real-world ecosystem data and scientific investigations
- ✓ Encourages **evidence-based reasoning** by having students use graphs to explain how energy moves through ecosystems and how environmental changes influence population stability and biodiversity

Your Activities

- Include a background reading for student understanding
- **DIGITAL and PRINT** ready
- **FULLY EDITABLE**
- **Extension activities** for early finishers
- **Complete Answer Key**



ECOSYSTEM ENERGY FLOW, BIOMASS PYRAMIDS & TROPHIC EFFICIENCY



Students Create Different Types of Graphs Based on Real World Data

High School Science Graphing & Data Analysis Bundle

Get all my Graphing and Data Analysis Activities at a **HUGE** discount. Additionally, you'll get access to all additional activities I create in the future.

Ecology & Population Dynamics Data Analysis Graphing Bundle HIGH SCHOOL

THREE Graphing Activities

NO PREP - Just download and Go!



Space Science Data Analysis Graphing Bundle HIGH SCHOOL

THREE Graphing Activities

NO PREP - Just download and Go!



Human Body Systems & Physiology Graphing Bundle HIGH SCHOOL

THREE Graphing Activities

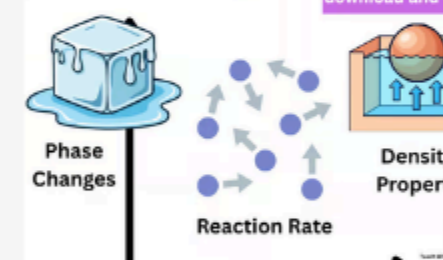
NO PREP - Just download and Go!



Matter & Chemical Change Data Graphing Bundle HIGH SCHOOL

THREE Graphing Activities

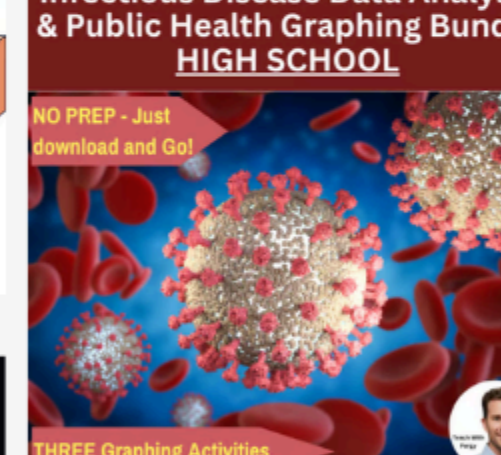
NO PREP - Just download and Go!



Infectious Disease Data Analysis & Public Health Graphing Bundle HIGH SCHOOL

THREE Graphing Activities

NO PREP - Just download and Go!



Climate Change Data Analysis & Long-Term Trends Graphing Bundle - HIGH SCHOOL

THREE Graphing Activities about the Climate Change

NO PREP - Just download and Go!



Force, Motion & Newton's Laws - HIGH SCHOOL

THREE Graphing Activities

NO PREP - Just download and Go!



Seasons and Earth's Systems Graphing Bundle HIGH SCHOOL

THREE Graphing Activities

NO PREP - Just download and Go!



Energy, Resources and Sustainability Data Analysis Graphing Bundle - HIGH SCHOOL

THREE Graphing Activities

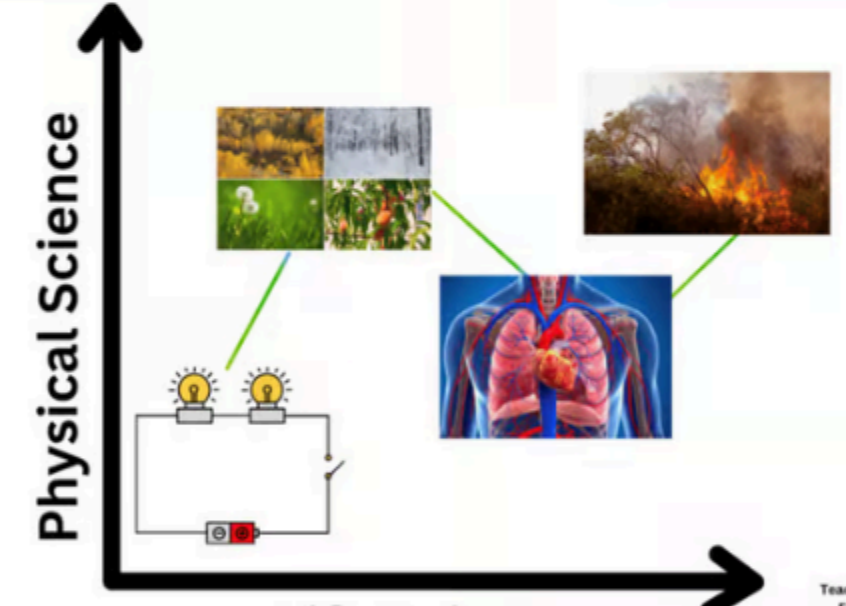
NO PREP - Just download and Go!



HIGH SCHOOL Science Graphing & Data Analysis Mega Bundle

Graphing Activities Across ALL TOPICS

NO PREP - Just download and Go!



Physical Science

Life Science

Teach With Fergy

Plus Many More!

Click Here

Thanks
**for your interest
in this resource!**

I am a real person and if
you have any questions,
suggestions, or concerns,
please reach out.



devon@teachwithfergy.com

TWF

Teach With Fergy

*Let's
Connect!*

