

Infectious Disease Data Analysis & Public Health Graphing Bundle HIGH SCHOOL

**NO PREP - Just
download and Go!**

THREE Graphing Activities



**Students use Real
World Data to
create different
graphs and answer
Disease Spread -
related questions**

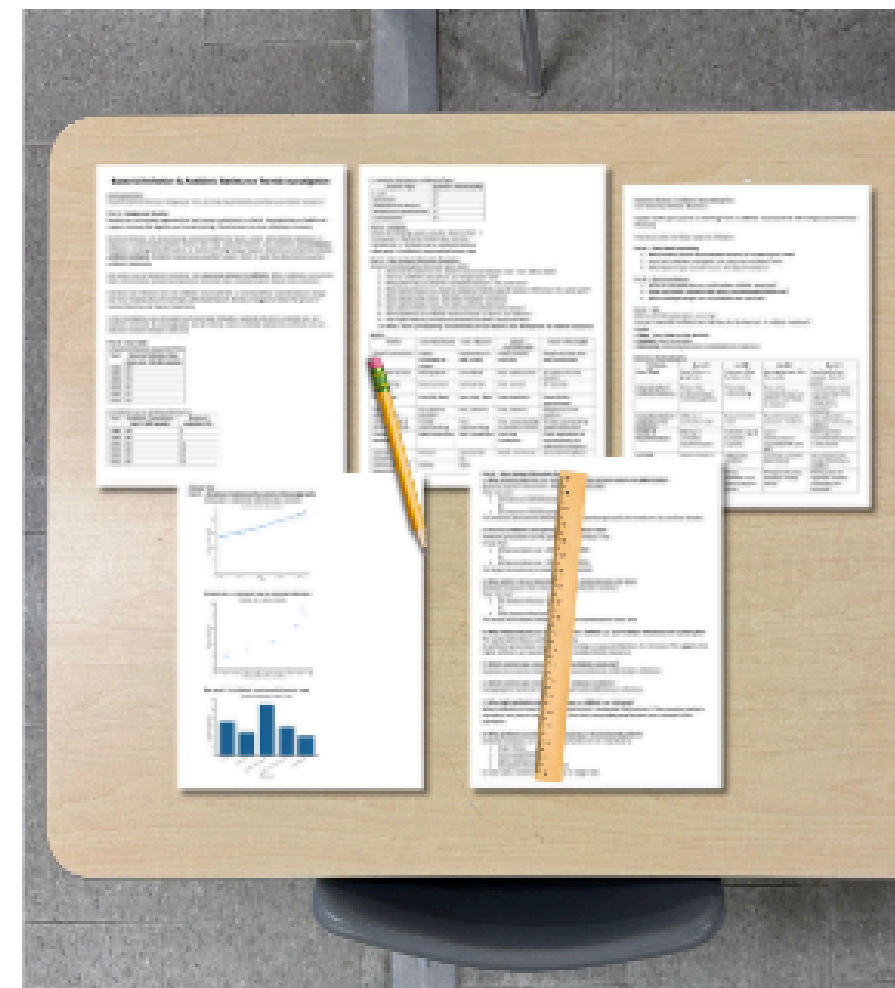
**SCROLL
to take a look inside!**



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

BACTERIAL INFECTION & ANTIBIOTIC RESISTANCE TRENDS INVESTIGATION

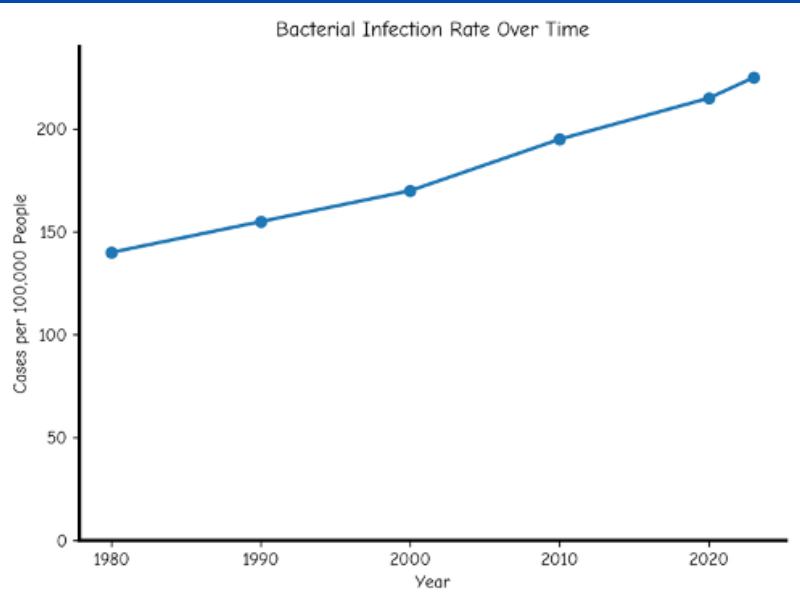
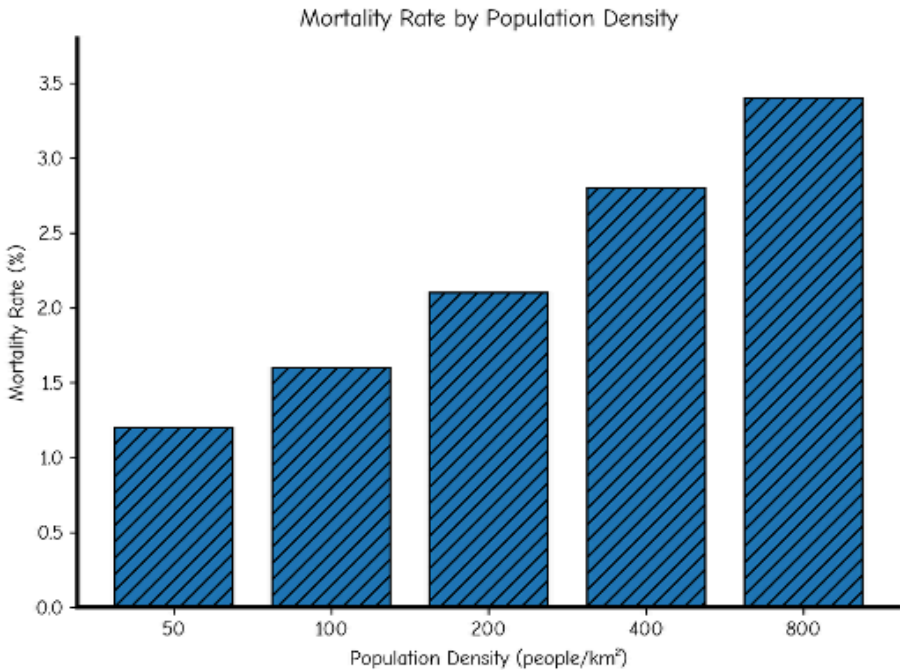


- Background Reading
- Data Tables
- Students Create Different Graph Types
- Extension Activity
- Full Marking Rubric

NO PREP or Materials

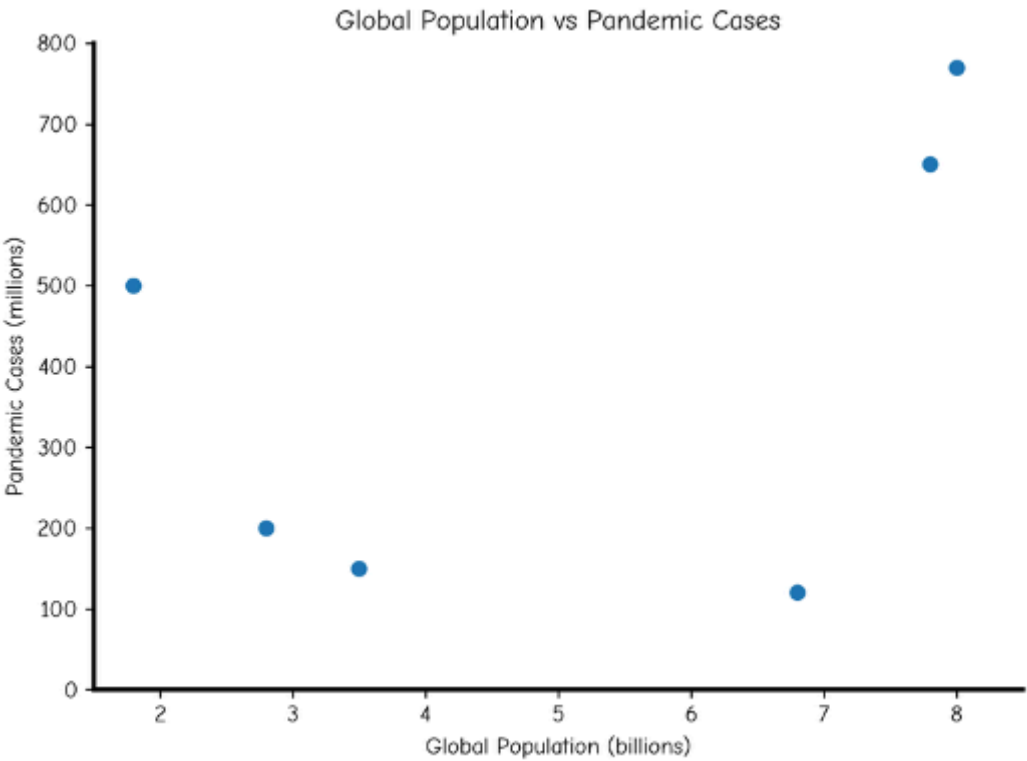
- **Three Disease Spread science investigations** that use real-world data for students to graph and analyze
- **Multiple graphing tasks** (line graphs, bar graphs, scatter plots) with data tables and analysis questions
- **Complete teacher supports** including answer keys, discussion questions, and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

What You Get



A. Bacterial Infection Cases Over Time

Year	Bacterial Infection Rate (cases per 100,000 people)
1980	140
1990	155
2000	170
2010	195
2020	215
2023	225



B. Antibiotic Use vs Antibiotic Resistance

Year	Antibiotic Prescriptions (per 1,000 people)	Resistant Infections (%)
1980	320	5
1990	360	7
2000	410	11
2010	450	16
2020	470	21
2023	465	23

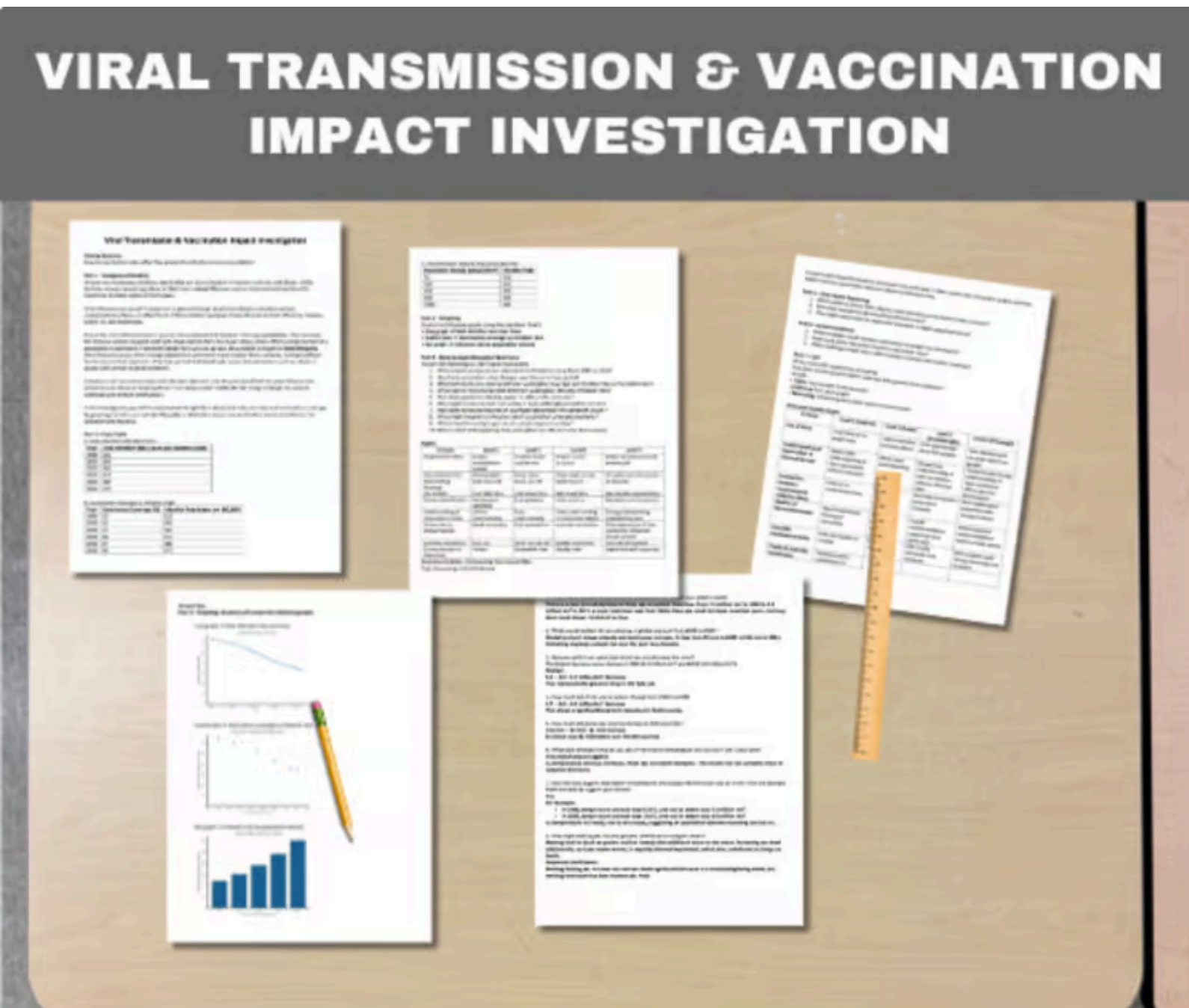
Rubric	Level 4 (Thorough)			
	incomplete or unclear	scale errors	accurate	is accurate and well-constructed
Axis Labels & Units	Missing labels	Some labels	Most labels correct	All labels and units correct
Data Plotting Accuracy	Data incorrect	Some correct	Most correct	All accurate
Use of Provided Data	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

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What Will Your Students Learn?



Students Use Their Graphs to Answer Questions and Draw a Conclusion

- ✓ Bacterial infection rates
- ✓ Antibiotic prescription trends
- ✓ Antibiotic resistance patterns
- ✓ Viral transmission trends
- ✓ Vaccination coverage and herd immunity
- ✓ Population density and disease spread
- ✓ Global pandemic case trends
- ✓ Public health risk factors
- ✓ Disease prevention strategies
- ✓ Community vaccination planning
- ✓ Population growth and global health risks
- ✓ Pandemic preparedness and response

What Will Your Students Learn?

✓ Helps students build graphing and data analysis skills using real-world disease spread and public health data

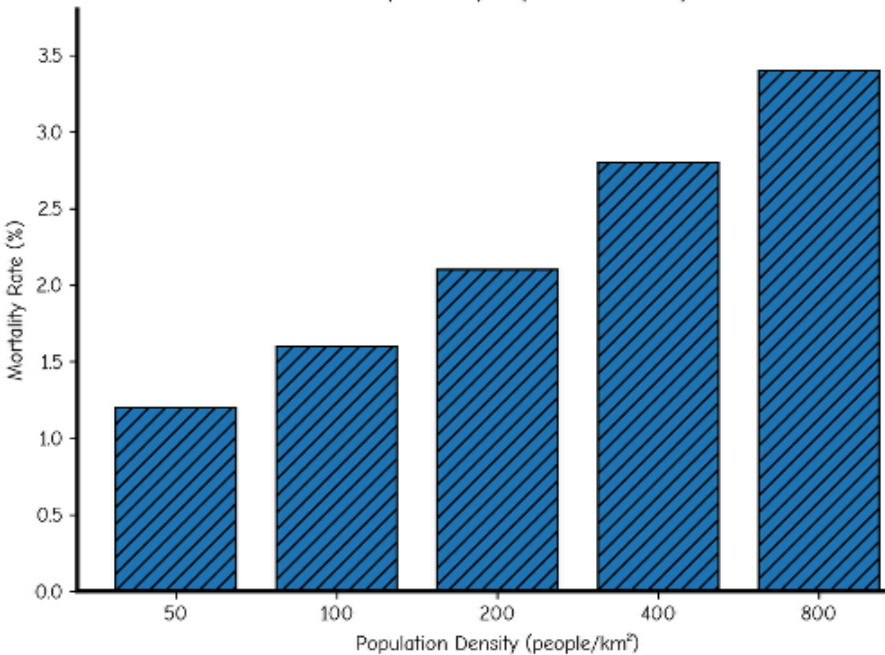
✓ Supports NGSS Science & Engineering Practices through analyzing patterns and relationships in infection rates, vaccination coverage, and pandemic trends

✓ Connects life science and public health concepts (like bacterial infections, viral transmission, vaccination, and population risk) to real-world

✓ data

Encourages evidence-based reasoning by having students use graphs to explain how disease spreads and how prevention strategies reduce infection rates

Mortality Rate by Population Density



Part 2 – Data Table

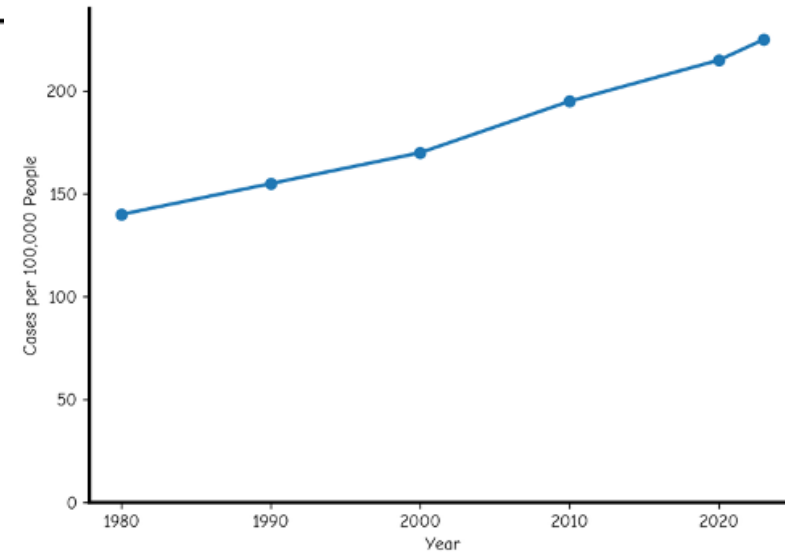
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Bacterial Infection Rate Over Time

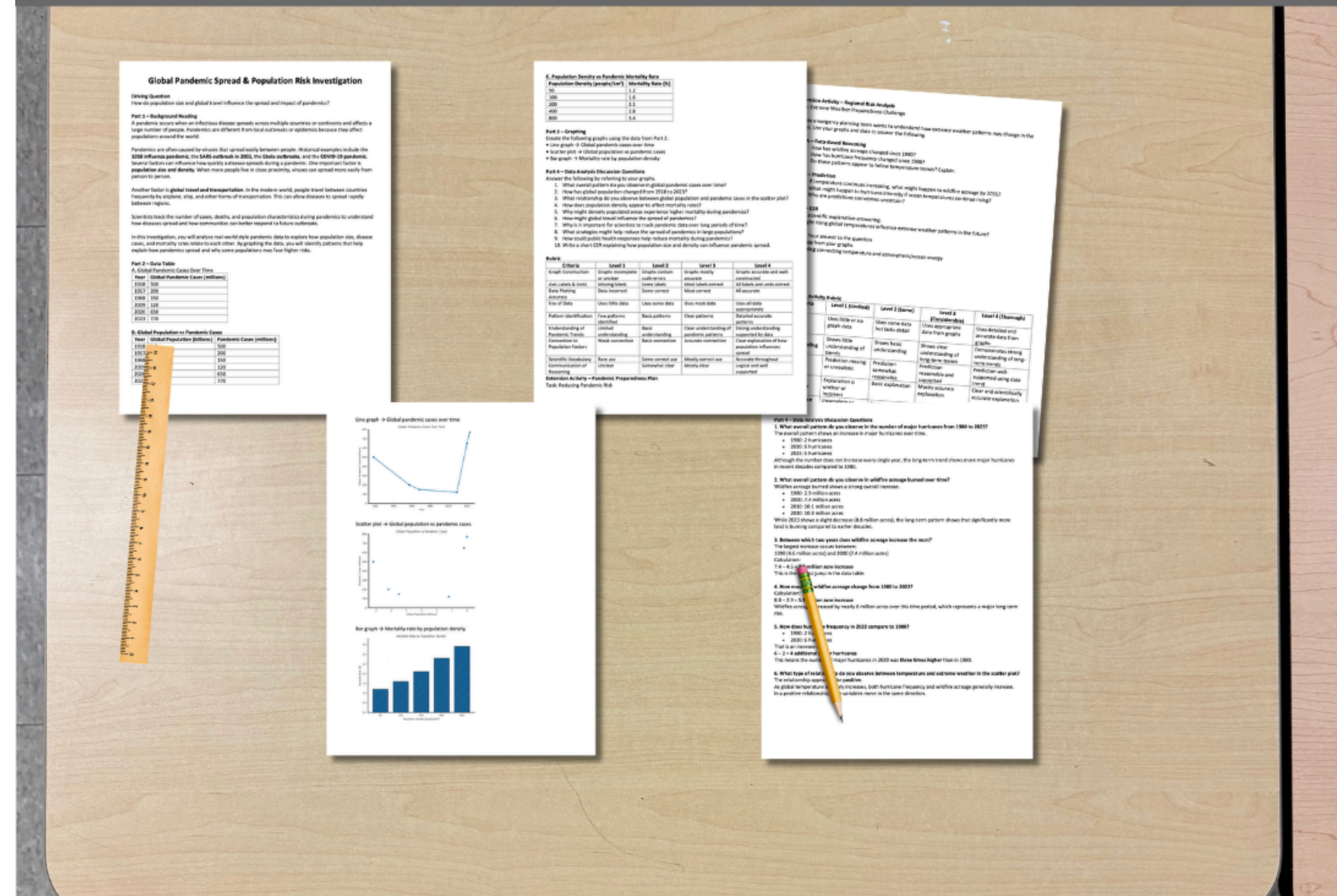


Your Activities

- Include a background reading for student understanding
- DIGITAL and PRINT ready
- Fully editable
- Extension activities for early finishers
- Complete Answer Key



GLOBAL PANDEMIC SPREAD & POPULATION RISK INVESTIGATION



Students Create Different Types of Graphs Based on Real World Data

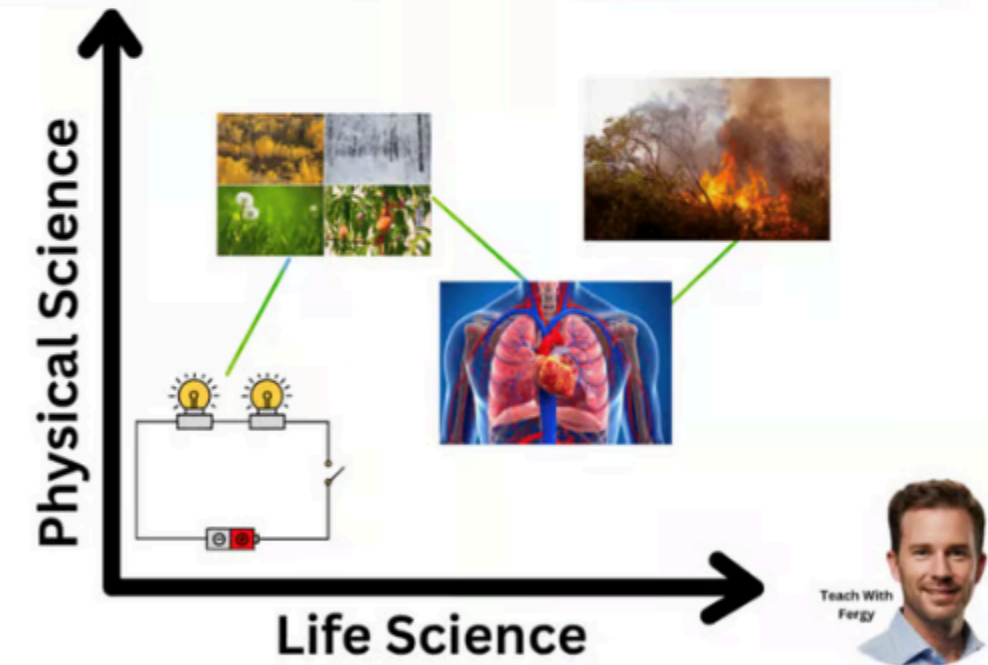
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**for your interest
in this resource!**

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



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TWF

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Connect!*

