DIGITAL TASK TRACKER WORKSHEET
Measuring the Energy & Carbon Footprint of Everyday Digital Activities

Student Name: _____**Date:** _____

Part 1: Select Your Digital Tasks
Choose 3 digital activities to measure or estimate. Examples:
- Watching a YouTube or Netflix video
- Running a generative AI chat prompt
- Browsing social media
- Playing an online game
- Doing a web search session
- Using cloud-based tools (Google Docs, Canvas, etc.)

Digital Task	Description of Task	Estimated Device Wattage (W)	Start Time	End Time	Total Minutes
Task 1					
Task 2					
Task 3					

Part 2: Calculate Energy Use
Formula:

$$kWh = \frac{(\text{Device Watts} \times \text{Minutes})}{60 \times 1000}$$

Task	Watts (W)	Minutes	Energy (kWh)
Task 1			
Task 2			
Task 3			

Part 3: Estimate Carbon Emissions
Use your region's conversion factor (example: **0.45 kg CO_2 per kWh**).

$$CO_2 \text{ Emissions (kg)} = kWh \times 0.45$$

Task	kWh Used	CO_2 (kg)
Task 1		
Task 2		
Task 3		

Part 4: Analyze & Compare Your Tasks

1. Which digital task used the most energy? Why do you think so?

_____

_____

2. Which task produced the least CO_2 emissions? Why?

_____

_____

3. What patterns did you notice when comparing the tasks?

_____

_____

Part 5: Scientific Inference Statement

Write a short conclusion using the NGSS practice of "constructing explanations from evidence."

"From my data, I infer that _____ because _____."

Part 6: Reflection – Reducing Digital Footprints

What behaviors or design choices could reduce the energy or carbon footprint of digital technology?

☐ Using devices with lower wattage
☐ Limiting unnecessary cloud or AI usage
☐ Using energy-saving modes
☐ Turning off auto-play features
☐ Choosing renewable-powered platforms