6th Grade Technology Pacing Guide

📚 Unit Overview & Weekly Breakdown

Weeks	Unit/Topic	Focus and Objectives
1–6	**Unit 1: Systems & UX Design**	Improve device interaction Design integrated hardware/software systems Explore design trade-offs Apply systematic troubleshooting
7–12	**Unit 2: Networks & Internet Protocols**	Model data packet flow Roles of protocols Practice network security Analyze security responses to malware.
13–18	**Unit 3: Data Management & Modeling**	Data sourcing, cleaning, transforming Bit-level storage vs. display Refine computational model (climate) Tool-format suitability
19–24	**Unit 4: Advanced Programming Concepts**	Flowcharts/pseudocode Structured programming (variables, types, loops, conditionals, nested logic) Decomposition Modular design with parameters.
25–30	**Unit 5: Iterative Program Development**	Integrate existing code, libraries, Media (with attribution) Test via diverse test cases and users Document and debug thoroughly
31–36	**Unit 6: Design Thinking & Real-World Impact**	Evaluate tech products for function, value, aesthetics Optimize under constraints Prototype solutions to real problems Assess ethical, environmental, cultural, and societal impacts