Hamilton Heights School Corporation
Computing Foundations for a Digital Age Curriculum Map

Course Title: Computing Foundations for a Digital Age	Quarter 1 & 2	Academic Year: 2025-2026

Essential Questions						
Unit Name	Total Days	Standards Number	Knowledge Objectives	Skills Objectives	Specific Assessments	Specific Resources
Problem Solving and Computing	8	D1.4, D1.3, D1.1	• Compare and refine algorithms • Decompose problems into smaller problems to facilitate development process. • Describe how internal and external parts of computing devices function • Model how computer hardware and software work	• Write algorithms • Break down tasks in order to problem solve	1. Building A Structure Activity and Participation 2. Problem Solving Process Reflection and Definitions 3. Specific Assessment Levels in Code.org to assess understanding	Code.org Computer Science Discoveries Unit 1 Problem Solving and Computing

			together as a system			
Data	20	D2.1, D2.2, D2.3, D2.5, D4.1, D5.1, D5.3,	• Represent data using multiple encoding schemes. • Use flowcharts and pseudocode to address problems	• Explain different data types. • Understand binary representation.	Specific Assessment Levels in Code.org to assess understanding	Code.org Computer Science Unit 5 Data and Society
Artificial Intelligence and Machine Learning	15	D1-D5	• Model how supervised learning identifies patterns in labeled data. • Discuss issues of bias and accessibility in design of	1. Create machine learning algorithm 2. Understand issues of bias 3. Explain differences between how systems operate	Specific Levels in Code.org App Lab to assess understanding Interactive Card Design A Game Project	Code.org Computer Science Unit 7 AI and Machine Learning

			technology. • Define supervised, unsupervised, and reinforcement learning algorithms and give examples of human learning • Contrast the unique characteristics of human learning with the ways machine learning systems operate.			
Computer Systems and Devices with Circuit Playground	15	PA 1-PA5	• Design and develop programs that combine control structures including nested • Decompose problems and subproblems into parts to facilitate the design and implementation.	Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended.	1. Specific Levels in Code.org App Lab to assess understanding 2. Writable Assessments 3. Paper Prototype 4. App Presentation	Code.org Computer Science Unit 1B
Networks, Internet, and	14	NI	• Model role of protocols in	1. Compare technologies that affect people's	Specific Levels in Code.org App Lab to	Code.org Computer Science Unit 4 Networks and the

Personal Data			transmitting data across networks and the internet. ● Evaluate scalability and reliability of networks. ● Describe issues that impact network functionality ● Evaluate the ways computing impacts personal, ethical, social, and economic practices.	everyday activities and career options. 2. Discuss real-world cybersecurity problems and how personal information can be protected	assess understanding Project guides and rubrics for assignments and projects.	Internet and Unit 5 Cybersecurity and Global Impacts