

Computer Science/Programming: Grades K-12

COMPUTATIONAL THINKING ¹

- 1 Create algorithms, or series of ordered steps, to solve problems.** 1.1

- 2 Decompose a problem into smaller more manageable parts.** 1.2

- 3 Collect, analyze, and represent data effectively.** 1.3

- 4 Demonstrate and understanding of how information is represented, stored, and processed by a computer.** 1.4

- 5 Optimize an algorithm for execution by a computer.** 1.5

- 6 Create simulations/models to understand natural phenomena and test hypotheses.** 1.6

- 7 Evaluate algorithms by their efficiency, correctness, and clarity.** 1.7

PROGRAMMING ²

- 1 Write programs using visual (block-based) programming languages (scratch, code.org).** 2.1

- 2 Create and modify animations, and present work to others.** 2.2

- 3 Write programs using text-based programming languages.** 2.3

- 4 Create web pages with a practical, personal, and/or societal purpose.** 2.4