

# Grade 1

## Computational Thinking

### 1 Develop, utilize, and evaluate algorithms, to model and solve problems.

- 1 An algorithm is a set of steps for a specific purpose and can be modified. [CS.1.1.1](#)
    - a Create and follow algorithms (sets of step-by-step instructions) to complete tasks. [CS.1.1.1.A](#)
    - b Debug (identify and fix) errors in an algorithm or program that includes sequences and simple loops. [CS.1.1.1.B](#)
    - c Using correct terminology, describe steps taken, and choices made during the process of program development and revision. [CS.1.1.1.C](#)
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### 2 Systematically analyze a problem using decomposition and abstraction to formulate a solution.

- 2 Complex problems can be broken into smaller parts to facilitate solving the problem. [CS.1.1.2](#)
    - a Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions. [CS.1.1.2.A](#)
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### 3 Represent and analyze data in order to generate new knowledge and capability.

- 3 Data is information that can be collected, stored, and represented in a variety of ways. [CS.1.1.3](#)
    - a Find, add, change, and delete information using a computing device and define the information stored as data. [CS.1.1.3.A](#)
    - b Collect and present the same data in various visual formats. [CS.1.1.3.B](#)
    - c Describe patterns in data using visual representations such as charts or graphs, to make predictions. [CS.1.1.3.C](#)
    - d Use numbers or other symbols to represent information and describe that this is similar to how computer programs represent information. [CS.1.1.3.D](#)
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## Computing Systems and Networks

### 4 Use systems thinking to describe networks and common software and hardware components.

- 1 Computing systems rely on both hardware and software, that can be local or accessed remotely. [CS.1.2.1](#)
    - a Describe basic hardware and software problems using accurate terminology. [CS.1.2.1.A](#)
    - b Describe the difference between online and local use of computing devices. [CS.1.2.1.B](#)
    - c Recognize that equipment is needed to access a network. [CS.1.2.1.C](#)
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## Computer Programming

### 7 Design and create programs, individually and collaboratively, for a variety of disciplines.

- 1 A computer program is a sequence of steps that is expressed in a computer programming language so that a computer can follow and perform the steps. [CS.1.3.1](#)
    - a Use appropriate software to perform a variety of tasks. [CS.1.3.1.A](#)
    - b Develop programs with sequences to express ideas or address a problem. [CS.1.3.1.B](#)
    - c Cite sources when using the ideas and creations of others while developing programs. [CS.1.3.1.C](#)
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## Digital Citizenship

### 13 Practice responsible, ethical, and safe use of computing technology and the internet.

- 1 Digital citizenship plays a role in our everyday lives both in person and online. [CS.1.6.1](#)
  - a Explain that there are rules for interacting online that are intended to keep people safe. [CS.1.6.1.A](#)
  - b Differentiate between appropriate and inappropriate online behavior. [CS.1.6.1.B](#)