Here are some essential terms we will use throughout this unit. Many of these are review, but new terms are bolded.

Automate — To make something happen automatically (without help from people)

Computer Science—The art of blending human ideas and digital tools to increase problem solving power

Computer Scientist—A person who is skilled at modifying problems for digital solutions

Data— Information, including: facts, samples, names and numbers

Environment— The world we live in

Interface— The way something allows you to connect with it

Open Source— Software that is created for free use by everyone

Programming—Writing instructions for a digital tool

Simulation—Pretending to be (a stand-in for) the real thing

Computational Thinking—A method of problem-solving that helps computer scientists prepare problems for digital solutions

Abstraction—Removing details from a solution so that it can work for many problems

Algorithm—A list of steps that allow you to complete a task

Decompose—To break a hard problem up into smaller, easier ones

Pattern—A theme that is repeated many times

Program—Instructions that can be understood and followed by a machine

Coding—Transforming actions into a symbolic language

Debugging—Finding and fixing problems in code

Function—A piece of code that can be called over and over

Parameters—Extra bits of information that you can pass into a function to customize it

Ambiguous—Having more than one meaning

Efficiency—Having the best outcome for the least amount of work

Evaluate—To work at an answer

Function Call—The place in your program where you call a function you have defined

Function Definition—The place where you assign a series of actions to one easy-to-remember name

Variable—A placeholder for a value that can change

Conditional—A statement that is either true or false depending on the situation

If Statement—A line that determines whether or not you run a certain chunk of code

Else—Another way of saying "Otherwise"

Increment—To add a certain amount (often 1), once or many times

Decrement—To subtract a certain amount (often 1), once or many times

Nested Statements—A statement inside another statement

Chorus—A piece of music that repeats often

Function Call— The piece of a program that sends the computer to a function

Function Definition—The piece of a program that tells the computer what to do when the code calls a function

Recursive—A definition that refers to the word it is trying to define

Specific—Talking about only one exact thing

Template—A frame to guide you in creating something new

Bugs—Problems with your code

Sequence—The order in which things are done

IP (Internet Protocol)—An agreed upon set of requirements for delivering packets across a network

IP Address—A number assigned to any item that is connected to the Internet

DNS (Domain Name Service)—The service that translates URLs to IP addresses

URL (Universal Resource Locator)—An easy-to-remember address for calling a web page (like www.code.org)

Internet—A group of computers and servers that are networked together

Network—A group of things that are connected to each other

Packets—Small chunks of information that have been carefully formed from larger chunks of information

Routing —Finding the best path through a network