1	256	This is 2 to the 8th power. It is the number of different numbers that you can store in a byte (8 bits), usually ranging from 0 to 255. An 8 bit number can be represented by two hexadecimal digits or three octal digits. (see ASCII)
2	API (Application Programming Interface)	An API is a software go-between that brings information from one application to another. It allows applications to communicate with one another while preserving some security measures for each end point. For example, an API can be used to securely transfer data stored by your web browser to a mobile app.
3	Input/Output Devices (I/O Devices)	I/O devices refer to anything people use to input information to the computer or to take information out (output). For example, a keyboard and mouse are input devices. A printer is an output device.

4	1 Byte =	8 bits
5	1 Gigabyte =	1,024 megabytes
6	1 Kilobyte =	1,024 bytes

7	1 Megabyte =	1,024 kilobytes
8	abstraction	abstraction (process): The process of reducing complexity by focusing on the main idea.
9	access [to CS]	The right and opportunity for all students to learn and experience computer science.

10	accessibility	Appropriate measures to ensure that persons with disabilities access information and communications, on an equal basis with others, both in urban and in rural areas.
11	Address	- a)A location in memory or identifying a particular piece of memory. b) An identification that allows access to something such as an internet address which allows one to access a device on the internet.
12	AI	Artificial Intelligence.

13	algorithm	A set of instructions for accomplishing a task that when executed will terminate
14	analog	The defining characteristic of data that is represented in a continuous, physical way. ------Measured in continuous values. The audio signal from a microphone is analog. A clock with hands is considered analog.
15	analysis [data]	Data analysis is a process of inspecting, cleansing, transforming and modeling data with the goal of discovering useful information, informing conclusions and supporting decision-making. Data analysis includes identifying trends and making predictions or inferences.

16	app	A type of application software designed to run on a mobile device, such as a smartphone or tablet computer.
17	Application	A runnable program that provides some service.
18	Argument	One of the pieces of data provided as input to a procedure or function through the call to the procedure or function.

19	array	A data structure comprising a collection of values of the same type accessible through an index. Data are of fixed size. For example, [A, B, C, D] is an array of letters;
20	artifact	Anything created by a human. See computational artifact for the definition used in computer science.
21	Artificial Intelligence	The subfield of computer science that involves the creation of programs that attempt to do what was formerly believed to only be able to be done by humans

22	ASCII	Pronounced ass-key. Stands for the American Standard Code for Information Interchange. It is a 7bit code for characters. For example: the letter ’x’ is represented as 1111000. Because it is only 7 bits long, an ASCII character can be stored in a byte.
23	Assignment	This stores a value in a variable. An assignment statement has an assignment in it describing the storage of values in variables.
24	assistive technology	Any device, software, or system that is used to increase, maintain, or improve functional capabilities of a person with a disability.

25	attribute	A piece of information which determines the properties of a field or tag in a database or a string of characters in a display. Example: The “color” attribute of a red car would have the value “red.”
26	audience	A person for whom a hardware or software product is designed (as distinguished from the developers).
27	authentication	The verification of the identity of a person or process.

28	Automate	To link disparate systems and software so that they become self-acting or self-regulating.
29	automation	The process of automating.
30	Autonomous	Controlled by computer programs and not people.

31	bandwidth	Refers to the volume of information that can be transmitted or processed. It is usually measured in bits or bytes per time unit like “bits per second”.
32	Big data	Big data is a quick way to refer to the massive amounts of data collected by organizations on a day-to-day basis.
33	Binary	A method of encoding data using two symbols, 1 and 0. Example: the number 4 written in binary is 100

34	binary number	A number written in the Base-2 Number System
35	BIOS	This abbreviation stands for "basic input/output system." It's a platform that allows a computer to operate software found on a hard disk drive. When a computer turns on, it relies on the BIOS to operate.
36	bit	A basic unit of data that stores one binary value, 1 or 0 Or the amount of information gained when answering a yes or no question.

37	Block	- A collection of statements that can be grouped together to be treated as one statement.
38	Boolean	A type of data or expression with two possible values: true and false. A function in programming with binary choices, like “Yes or No” and “True or False.”
39	Boot Program	The program run when the computer hardware is powered up.

40	Boot Program	To restart a computer as if the computer had been powered down regardless of whether it was on and running or not.
41	bridge	A device that creates a single network from multiple networks or network segments.
42	Broadcast	In messaging passing it is to send the same message to all who can listen as opposed to peer-to-peer communication for instance.

43	Buffer	Buffer is the location for storage of temporary data, often used in a device's random-access memory.
44	bug	An error in a software program. It may cause a program to unexpectedly quit or behave in an unintended manner.
45	BUS	- a) the main path for bits traveling in parallel in and out of a CPU or between major computational, storage, and device components. It is often many bits wide. b) Any pathway for bits to travel in parallel.

46	Byte	8 bits. It is often denoted by a capital B as in MB (mega-bytes).
47	Cache	Is memory used to speed memory access, that stores data that is anticipated to be used next or was just used and may be used again. For example: cache may exist on slow physically rotating discs to save information of data that is near to the data just accessed or to hold data without writing it to disc until it is likely not to change again.
48	Call	- A statement in a language that starts or invokes a procedure or function

49	Camel Case	Camel case refers to the practice of capitalizing the first letter of each compound word in a programming variable to improve readability. For example, “StretchLength” and “FixedHeight.”
50	Card	- A circuit board which can be plugged into your computer motherboard.
51	central processing unit (CPU)	The device within a computer that executes instructions

52	CGI	CGI is an abbreviation for "common gateway interface." The term defines how a web server and auxiliary program can communicate with one another. This communication is important when a software user is trying to use a program that relies on an internet connection, such as an online video game.
53	Character	A single letter or symbol that is represented by a small set of bytes in the computer. See ASCII and Unicode.
54	Chip	A integrated electronic circuit generally with from thousands to billions of components such as transistors and capacitors that perform complex functionality such as addressable memory, CPU, I/O functions.

55	class	In object-oriented programming, an extensible program-code template for creating objects, including associating variables with objects (“member variables”) and the processes objects perform (“methods”).
56	Client	A client is a program that requests information from other programs or processes.
57	Clock	The internal “drummer” or heartbeat that keeps the CPU activities across the chip and across the motherboard in sync. Often measured in megahertz or gigahertz

58	Cloud	a) In the phrase “in the cloud” refers to information being stored not on one’s own computer but on a distant mass storage device accessible via the internet. b) Computing that is done not on one’s own computer but on computers accessed via the internet.
59	Cloud Computing	Rather than computation occurring “locally” on one’s own computer, the computation is on distant machines accessible via the internet.
60	Cloud storage	Cloud storage is an alternative to storing data on a computer’s physical storage.

61	Cluster Computer	- Also known as a cluster is a supercomputer made up of many smaller computers such as PCs connected with very fast network hardware.
62	code	Any set of instructions expressed in a programming language.
63	coding	coding: The act of writing computer programs in a programming language.

64	comment	A programmer-readable annotation in the code of a computer program added to make the code easier to understand. Comments are generally ignored by machines.
65	Comment	Comments are important in programs as they are nonexecuting code that explains to a reader of the code in plain text what is going on
66	Comparison	This is an operation that compares things like if the values in two variables are equal. In processing the equals comparison is done with the double equals: ==. In NetLogo it is done with a single equals: =. Other comparisons are things like not equal and greater than.

67	Compile Time	During the time that a program is being compiled.
68	Compiler	A program for translating a program written in one language into code that can be executed.
69	Compiling	The process of taking code that's written in a high-level language (like C++) by human developers and translating it into machine-readable code.

70	complexity [of an algorithm/program]	The minimum amount of resources, such as memory, time, or messages, needed to solve a problem or execute an algorithm.
71	component	An element of a larger group. Usually, a component provides a particular service or group of related services. There are both hardware and software components. Examples of hardware components are sensors, random access memory (RAM), motherboard, and central processing unit (CPU). Software components are portions of a program that are part of a
72	computational thinking	The thought processes involved in expressing solutions as computational steps or algorithms that can be carried out by a computer.

73	computer	An electronic device for storing and processing information based on programs stored in the computer.
74	computer science	The study of computers and algorithmic processes, including their principles, their hardware and software designs, their implementation, and their impact on society.-----a) the study of process, data and computation. b) A very cool profession. (No bias here. ;-)).
75	computing	Any goal-oriented activity requiring, benefiting from, or creating algorithmic processes.

76	computing device	A physical device that uses hardware and software to receive, process, and output information. Computers, mobile phones, and computer chips inside appliances are all examples of computing devices.
77	computing system	A collection of one or more computers or computing devices, including their hardware and software, integrated for the purpose of accomplishing shared tasks. Although a computing system can be limited to a single computer or computing device, it more commonly refers to a collection of multiple connected computers, computing devices, and hardware.
78	conditional	A feature of a programming language that performs different computations or actions depending on whether a programmer-specified Boolean condition evaluates to true or false.

79	Conditional statements	Conditional statements, another fundamental piece of programming instructions, set the terms for when a program moves forward. This is often expressed in an “If, then” format. If all conditions expressed are met and true, only then will the computer move on to do the next step.
80	configuration	The specific hardware and software details that tell exactly what the system is made up of, especially in terms of devices attached, capacity, or capability.
81	connection	A physical or wireless attachment between multiple computing systems, computers, or computing devices.

82	connectivity	A program’s or device’s ability to link with other programs and devices.
83	Control Panel	A control panel allows for the changing of the settings, appearance and behavior of a program. It's the primary location of information about the program and how it behaves. The control panel allows for easy access to critical aspects of a program or app.
84	Control	The use of elements of programming code to direct which actions take place and the order in which they take place.

85	Core	A sub-processor on a chip. Usually used when there are more than one processor on a single chip. Modern CPU chips often have several cores.
86	CPU intensive	- A program that spends most of its time running on the CPU with a disproportionately small amount of time waiting for data from memory
87	Collaborating Around Computing	Working effectively with colleagues/peers to plan and reflect on lessons and create complex artifacts. Collaboration requires teachers to navigate and incorporate diverse perspectives, conflicting ideas, disparate skills, and distinct personalities.

88	Cyber security	Cyber security is the process of protecting data from unauthorized users or hackers. It also represents a huge sector of the tech industry as more and more companies race to stay ahead of cyber criminals and security threats.
89	constructive feedback	Providing useful comments and suggestions that contribute to a positive outcome, a better process, or improved behaviours.
90	cyberbullying	The use of electronic communication to bully a person typically by sending messages of an intimidating or threatening nature.

91	cyber harassment	The use of the Internet or other electronic means to harass an individual, a group, or an organization.
92	cybersecurity	The protection against access to, or alteration of, computing resources through the use of technology, processes, and training.
93	data	Information that is collected and used for reference or analysis. Data can be digital or nondigital and can be in many forms, including numbers, text, show of hands, images, sounds, or video.

94	Data Abstraction	Giving a name to a complex set of data that forms a single concept thereby removing the need to always refer to all the detail. To hide the details of data by referring to the whole rather than the parts. For example a complex data structure may be necessary to describe all the details of a car but could collectively be referred to as simply the car type. All the data of the car could for instance be created, copied, sorted, deleted
95	Data intensive	A program that spends most of its time waiting for data from memory rather than computing. Sometimes called memory intensive.
96	Data Mining	- Using algorithms to infer complex results for masses of data such as sensor data or the world's web pages. Generally to be data mining most of the data available is not relevant but large enough amounts are that it is nontrivial to draw conclusions.

97	data structure	A particular way to store and organize data within a computer program to suit a specific purpose so that it can be accessed and worked with in appropriate ways. Examples of data structures include arrays, queues, linked lists, trees, and graphs.
98	data type	A classification of data that is distinguished by its attributes and the types of operations that can be performed on it. Some common data types are integer, string, Boolean (true or false), and floating-point.
99	Database	An organized collection of data and services to access them in a variety of ways relevant to the data.

100	debugging	The process of finding and correcting errors (bugs) in programs.-----Debugging, or debug, is the process used to find and remove bugs from the source code of a program. Computer programmers use debugging to get rid of issues before the end user experiences any problems using a program. This process might occur during the quality assurance phase of software development.
101	Declaration	A statement in a program that attaches a property to a symbol. For example in Processing you might say: “float x” which means that the variable x has the property that it is a floating point number. In processing you have to declare variables giving them a type before you use them.
102	Decompose	To break down into components.

103	decomposition	Breaking down a problem or system into components.
104	develop [programs]	Iteratively design, implement, debug, and review computer programs. This may refer to the creation of an individual software program or an entire information system and all related software.
105	device	A unit or piece of hardware with a specific purpose such as a disk, keyboard, audio board, etc.

106	Digital	A characteristic of electronic technology that uses discrete values, generally 0 and 1, to generate, store, and process data.---Measured in a set of discrete steps. The audio signal on a CD or in an mp4 file is digital. cf. Analog. Compare with analog.
107	digital citizenship	The norms of appropriate, responsible behavior with regard to the use of technology. Digital citizenship topics include instruction on media balance, privacy and security, cyberbullying, news and media literacy, and digital identity and footprint.
108	Disk	A magnetic storage device that records data on a spinning disk. The bulk of long term storage on a today's computers is "on the disk". The main file system is usually found here. Compare with the term SSD

109	Disk Storage	Disk storage is the opposite of cloud storage. It's the storage available on a hard drive or a device's long-term memory system. When the disk storage gets too full, a device may become less responsive or have trouble opening and running certain programs. This is because the device has to process a lot of data so it can find and run programs and apps.
110	DOS	DOS is an acronym that means "disc operating system." It's an operating system that allows users to enter commands line by line to get the computer to open programs or respond in various ways. DOS isn't as commonly used in modern devices, but it was once the main operating system for all computers.
111	Drone	An unmanned flying vehicle (See UAV). May be remote controlled or autonomous.

112	efficiency	A measure of the amount of resources an algorithm uses to find an answer. It is usually expressed in terms of the theoretical computations (e.g., Big O notation), the memory used, the number of messages passed, the number of disk accesses, etc.
113	Embedded	A computer is said to be embedded if it is integrated into the function of a physical item. The computers in a car are embedded in the car. One speaks of embedded systems.
114	encapsulation	The technique of combining data and the procedures that act on it to create a type.

115	encode	To assign a code to represent data.
116	encryption	The conversion of electronic data into another form, called ciphertext, which cannot be easily understood by anyone except authorized parties.
117	end user (or user)	A person for whom a hardware or software product is designed (as distinguished from the developers).

118	Environment	The environment refers to the way all device factors interact with one another. These factors can include hardware, software and network protocols. Within the environment, each component can communicate with the others.
119	Ethernet	An Ethernet is a system that connects devices and computers to a shared network. This system supports monitored, efficient data transmission. It's often used by corporations and organizations to restrict network access to authorized users and improve data security.
120	event	Any identifiable occurrence that has significance for system hardware or software. User-generated events include keystrokes and mouse clicks. System-generated events include program loading and errors.

121	event handler	A procedure that specifies what should happen when a specific event occurs.
122	Executable	A file that can be executed by the operating system.
123	Execute	To carry out (or “run”) an instruction or set of instructions (program, app, etc.).

124	execution	The process of executing an instruction or set of instructions.
125	expression	In a programming language, a combination of explicit values, constants, variables, operators, and functions interpreted according to the particular rules of precedence and of association which computes and then produces (returns, in a stateful environment) another value. Example: b = a + 2.---------- Is a language construct that can be used to produce a value. For example
126	External hard drive	A disk that is a peripheral.

127	FAT	Short for "file allocation table," the FAT resembles a table of contents for all the files on a computer. It exists to allow for easier access and location of files on the device. When searching for a file, a user might open the FAT to locate it.
128	File	a single block of information allocated by an operating system for retention beyond the execution time of any program
129	File Extension	when naming a file there is often a part after the last period in the file name called the file extension that indicates the type of the file such as pdf, jpg, txt, etc.

130	File System	is the way in which files are named and where they are placed logically for storage and retrieval.
131	firewall	A network security system with rules to control incoming and outgoing traffic.
132	Flag	A term used in reference to a Boolean variable used to answer an true or false question. For example. For example: the variable errorFlg is used in the program to indicate if an error has been found. Often flag variables are used as a parameter to control some aspect of a function or program. For example: the variable no Output is used to control if the program is to produce any visible output or not.

133	Floating Point Number	A number with a decimal in it like 3.141592653589.
134	Front-side Bus	It is a connection between the CPU and fast components of your computer like RAM and GPU (See the term Bus). Technically it is a term for a specific Intel transport mechanism but can be used in this general way
135	function	A type of procedure or routine. Some programming languages make a distinction between a function, which returns a value, and a procedure, which performs some operation, but does not return a value. See also procedure.-------- A standalone segment of code with a clear set of inputs and output that performs a specific function

136	Functional Abstraction	- Abstraction to what a section of code will do rather that the details of how it does it. A function definition allows for abstracting the contained code to a simple call to a function.
137	Giga	A prefix for a billion, (109) as in a gigabyte or gigahertz or gigabananas (billion bananas).
138	Global variable	A variable that is accessible from anywhere in the code. It is also persistent for the duration of the program.

139	GPU	Graphics Processing Unit. It is a CPU that processes instructions specifically targeted at graphics processing. It is highly parallel with hundreds to thousands of simple cores.
140	Graphics card	- Is a circuit board containing a CPU that processes instructions specifically targeted at graphics processing. This is especially useful for games and simulation programming. A111:AMJ111
141	Graphics processing	Image construction and manipulation

142	hacking	Appropriately applying ingenuity, or using a computer to gain unauthorized access to data within a system.
143	Hard drive	A magnetic storage device that records data on a spinning disk. The bulk of long term storage on a today's computers is "on the disk". The main file system is usually found here. Compare with the term SSD
144	hardware	The physical components that make up a computing system, computer, or computing device. Compare with software.

145	Hertz	- A cycle or oscillation per second. A second hand on a
146	Hex	Short for Hexadecimal
147	hexadecimal	A positional numeral system with a radix or base of 16. It uses sixteen distinct symbols, most often the symbols 0–9 to represent values zero to nine, and A, B, C, D, E, F (or alternatively a, b, c, d, e, f) to represent values of ten to fifteen. Hexadecimal numerals are widely used by computer system designers and programmers.

148	hexadecimal	The base 16 number system (compare with binary). It is often used to express binary numbers in shorter strings than binary or octal. Counting to 20 using two hex symbols: 01, 02, 03, 04, 05, 06, 07, 08, 09, 0a, 0b, 0c, 0d, 0e, 0f, 10, 11, 12, 13, 14.
149	hierarchy	A system formed by several subsystems organized according to a level structure. In computer science, examples of hierarchy are levels of abstraction in hardware (atoms, transistors, gates, chips) and software (assembly language, operating system, high-level language, application), file systems (directories and subdirectories), and data structures (objects and
150	HSB or HSV	- Stands for “Hue, Saturation, Brightness or Value”. It is a way of specifying a color by giving the amount of each of three contributing factors to make the color: Hue is the color in the color wheel, Saturation is the amount of color versus white, Value is how bright the color is or distance from black.

151	HTML	Hypertext markup language. The language used to create web pages.
152	hub	In a computer network, a device to which all other devices are wired.
153	human–computer interaction (HCI)	The study of how people interact with computers and to what extent computing systems are or are not developed for successful interaction with human beings.

154	HW	- abbreviation for hardware
155	IDE	Integrated Development Environment. A software tool to help you write software. Examples include the open source: Eclipse and NetBeans and the proprietary Microsoft Visual Studio
156	identifier	The user-defined, unique name of a program element (such as a variable or procedure) in code. An identifier name should indicate the meaning and usage of the element being named.

157	impacts [of computing]	The positive, neutral, and negative ways that computing affects many aspects of the world at local, national, and global levels. Individuals and communities influence computing through their behaviors and cultural and social interactions, and in turn, computing influences new cultural practices. An informed and responsible person should understand the
158	implementation	A step of the development process during which a person converts a design into a program.
159	Indenting	Indenting is a MUST in your program. Indenting shows the reader what is the intended nesting of the code. Indenting is a critical tool in debugging. Always, always indent!!

160	index	A common method for keeping track of data so that it can be accessed quickly. Like an index in a book, it is a list in which each entry contains the name of the item and its location. However, computer-based indexes may point to a physical location on a disk or to a logical location that points elsewhere to the actual location.
161	input;	The signals, data values, or instructions sent to a computer.
162	input device	Hardware accessory that receives signals or instructions sent to a computer. Examples include keyboard, mouse, microphone, touchpad, touchscreen, and sensors.

163	Instruction	a) A single executable action for the CPU b) the binary encoded form for the instruction.
164	Integer	A whole number, that is, with no fractional part. Maybe be positive, negative, or zero.
165	Integrated Development Environment (IDE)	An integrated development environment is a software tool where developers can write code and run their programs. Many provide useful features like syntax highlighting, debugging tools, version control and more.

166	integrity [data]	The overall completeness, accuracy, and consistency of data.
167	Interface	The formal way in which two things interact. In particular how humans and machines interact or two pieces of software interact.
168	Internet	A network of computers, routers, and other networks interconnected with a specific network communications protocol (TCP/IP).

169	Internet Protocol (IP) address	A unique numeric value assigned to a computer or other device connected to the Internet so that it may be identified and located.
170	Interpreter	A combination of a compiler and runtime environment that translates and executes a program in one step.
171	IOT	Internet of Things. Physical objects with embedded computers that represent the object on the internet. For example, a washing machine may be on the internet allowing an owner to “start the wash” remotely. Around 2021 the number of IOT devices exceeded the number of people and continues to grow.

172	IT	Information Technology. This refers to general hardware, OS, and network design and support
173	Kernel	Kernel is a computer program that supports the main system on a computer when it starts up. The program allocates resources to various applications and sets up communication within the system. Kernel helps manage hardware and system needs.
174	Keyword	A reserved word in the language that has special meaning in the language and cannot be appropriated for other purposes. For example “for” in Processing or C++.

175	Kilo	A prefix for a thousand, as in a kilobyte.
176	Kilobyte	may be 1000 bytes or 210 bytes which is equal to 1024 bytes depending on situation
177	latency	The delay before a transfer of data begins following an instruction for its transfer. Latency is the measure of time between entering an input and the returned output. The higher the latency, the longer it takes. This is an important factor for web applications and interfaces where a noticeable delay may impact user satisfaction.

178	lifelong learning	All learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective.
179	Linux	An operating system authored by Linus Torvalds as a free operating system. Companies that distribute Linux make their money in configuration and support. It is based on the UNIX operating systems.
180	list	A data structure for storing ordered values. Data are of arbitrary/unfixed size.

181	local area network (LAN)	A computer network limited to a small area, such as an office building, university, or even a residential home.-----LAN stands for "local area network." The term refers to a computer network that spans a small physical area. To accommodate additional devices, computer scientists might connect several LANs.
182	Local variable	A variable that is accessible only in a portion of the code. Generally, within a procedure and is created as you enter a procedure and destroyed as you leave
183	Logic Error	A semantic error. Note: Compiler writers may draw a subtle distinction between the two

184	loop	A programming structure that repeats a sequence of instructions as long as a specific condition is true. Infinite (forever) loops repeat the same steps endlessly, and it has no terminating condition. Count-controlled (for) loops repeat the same steps a specific number of times, regardless of the outcome. Condition-controlled (while, for... while) loops will keep
185	machine code / language	A computer programming language consisting of binary or hexadecimal instructions which a computer can respond to directly.
186	Machine Instructions	The instructions executed by a CPU. The bit level instructions of a computer.

187	Machine Learning	- Is a branch of Artificial Intelligence that uses statistical modeling to learn from experience.
188	Malware	Software that is surreptitiously installed on a computer to damage, compromise, or acquire data. It may also be used to for unauthorized accessibility to the function of the computer e.g. cause damage to a machine controlled by the computer
189	media access control (MAC) address	A hardware identification number that uniquely identifies each device on a network. The MAC address is manufactured into every network card and, therefore, cannot be changed.

190	Mega	A prefix for a million, (106) as in a megabyte or megahertz.
191	memory	The physical storage space in computing devices, where data is to be processed and instructions required for processing are stored. Types of memory are RAM (Random Access Memory), ROM (Read Only Memory), and secondary storage such as a hard drive, a removable drive, and cloud storage.-------Addressable storage for storage and retrieval of bytes of data. The term memory generally
192	Message Passing	A way to pass information between processes, machines, or threads that are running in parallel.

193	Motherboard	The main circuit board generally connecting most major components of a computer such as CPU, memory, I/O devices.
194	Multi-Core processor	a chip with multiple processors and cache memory to speed execution
195	Nano	- a) a prefix for a billionth, as in a nanosecond or a nanometer. b) a very small thing like nanotechnology

196	Nanosecond	a billionth of a second. Light travels about a foot in a vacuum in a nanosecond
197	Nest	Nesting is an important feature of most computer programs and languages. To nest a piece of code in another piece of code is to use the first code as a integral block of function in the second piece of code. For example we could nest a for statement in the body of another for statement.
198	network	A group of computing devices (personal computers, phones, servers, switches, routers, etc.) connected by cables or wireless media for the exchange of information and resources.-----An interconnected set of computers that can share information.

199	networking device	Hardware units that connect nodes on a network so that they can share data or resources. Examples include hubs, switches, routers, and bridges.
200	node	Computational devices (e.g., personal computers, printer, smart phones, servers) on a network.
201	Northbridge	connects the CPU to high speed data components such as memory and graphics cards.

202	Object	A collection of variables and functions brought together in a programming system to represent a physical thing, its data and its function.
203	object code	The machine language representation of programming source code. Software called a "compiler" converts the source code into object code and links it to other object code libraries to become an executable program. Not related to object-oriented programming.
204	object-oriented programming	Computer programming based on the concept of “objects”, which can contain data, in the form of fields (often known as attributes), and code, in the form of procedures (often known as methods).-------A programming style in which variables and functions are associated in an object and visibility of the contents of the object is constrained. For example in Scratch, a sprite “owns” its own local

205	Octal	The base 8 number system (compare with binary). It is often used to express binary numbers in shorter strings. Counting to 10 using two octal symbols: 01, 02, 03, 04, 05, 06, 07, 10, 11, 12.
206	On Chip	Generally means the functionality is on the CPU chip or the chip under discussion. Can refer to hardware as in “The north bridge can now be found on chip” or refer to execution as in “the data and instructions are cached on chip”.
207	Open Source	An application or software which is provided with the source code, usually with few restrictions, for repurposing or augmenting.

208	operating system (OS)	A set of programs that manage the functioning of, and other programs' access to, hardware.-------The program that runs on the computer hardware creating information objects such as files and processes and assures the fair and secure allocation of processor time, access to files, access to devices, and other resources. Accounts and access control of data is commonly
209	operation	An action that is carried out to accomplish a given task. Five basic types of computer operations are: inputting, processing, outputting, storing, and controlling. Arithmetic operations are addition, subtraction, multiplication, and division.
210	operator	A symbol that represents a connection between two values. Types include logical (AND, OR, NOT), relational (= < ≤ > ≥), and arithmetic (+ - ÷ ×).-------Is a computational or mathematical operator such as ==, equal, *, +, /. It generally is used in-between the values to be used as input for the operator (called operands). For example 1+2.

211	output	Any information that is processed by and sent out from a computing device. An example of output is anything viewed on your computer monitor screen, such as the words you type on your keyboard.
212	packet	The unit of data sent over a network.-----A packet is a section that divides computer data or messages. Multiple packets might include the data of a single file. This division allows information to be transferred over a network more efficiently.-------A unit of information into which data is broken up for transmission in a network or by other means. For example a stream or file of data would be broken up into packets
213	Pairs Programming	A programming methodology that has two programmers set down at a single keyboard and display to program as a team effort. Producing more and better working code.

214	Parallel	processes run in parallel means they are executing at the same time on different CPUs or cores.
215	Parallel Computing	The field of Computer Science that deals with algorithms, techniques and hardware that enables simultaneous execution of many streams of instructions.
216	parameter	The name of a piece of information passed into a procedure to customize it for a specific need.

217	PC	Personal Computer or sometimes stands for a Personal Computer running the Windows operating system.
218	peripheral (device)	Any external device that provides input and output for the computer. For example, a keyboard and mouse are input peripherals, while a monitor and printer are output peripherals.
219	Peta	A prefix for a quadrillion (1015) as in a petabyte.

220	piracy	The illegal copying, distribution, or use of software.
221	pixel	The smallest controllable element of a picture/display. Also known as picture element.-----The term "pixel" combines two words, "picture" and "element." It refers to a single point within a digital image. The higher the number of pixels in an image, the larger the file is and the better its image quality is.
222	Port	A physical socket on a computer for attaching the computer to external devices such as a printer or a router.

223	Powers of Two	A number that is the product of two multiplied together many times. The k th power of two is denoted 2k . Powers of two are very important in computing because k bits can be used to number 2k things in binary. The first few powers of two are: 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096
224	Procedure	A standalone segment of code with a clear set of inputs and output that performs a specific function. Compare with function.
225	procedure	An independent code module that fulfills some concrete task and is referenced within a larger body of program code. The fundamental role of a procedure is to offer a single point of reference for some small goal or task that the developer or programmer can trigger by invoking the procedure itself.

226	Process	An operating system construct that is a running program. To perform a series of operations on a set of data.
227	Program	program (noun): A set of instructions that the computer executes to achieve a particular objective. program (v): To produce a computer program.
228	programming	The craft of analyzing problems and designing, writing, testing, and maintaining programs to solve the problems.--------Constructing a program; usually in a high level language. The art of instructing computers how to do something.

229	protocol	store, retrieve, and process data automatically.
230	prototype	An early approximation of a final product or information system, often built for demonstration purposes.
231	pseudocode	An informal high-level description of the operating principle of a computer program or other algorithm.

232	RAM	Generally refers to the memory that is not in the CPU and not a disk. In general it is volatile and anything in it is lost when the computer is turned off. It's used to temporarily store current instructions and data during execution amongst other things.
233	Ransomware	Malicious software designed to hold data hostage for money often by encrypting it.
234	Reboot	To restart a computer as if the computer had been powered down even though it was turned on and possibly running

235	Recognizing and Defining Computational Problems	Defining problems, breaking them down into parts, and evaluating each part to determine whether a computational solution is appropriate.
236	recursive	A procedure or subroutine, implemented in a programming language, whose implementation references itself.
237	redundancy	A system design in which a component is duplicated, so if it fails, there will be a backup.

238	reliability	An attribute of any system that consistently produces the same results, preferably meeting or exceeding its requirements.
239	remix	The process of creating something new from something old.
240	repetition	The process of repeating a task a set number of times or until a condition is met.

241	RGB	Stands for “Red, Green, Blue”. It is a way of specifying a color by giving the amount of each of three contributing primary colors to make the desired color.
242	ROM	Read-Only Memory. This is memory that can only be read from and is not electronically modifiable after being manufactured. Computers use ROM to store critical foundational information like start-up processes and software instructions
243	router	A device that connects networks to one another. Routers determine the path that data packets travel from source to destination.

244	scalability	The capability of a network to handle a growing amount of work or its potential to be enlarged to accommodate that growth.
245	Scalable Computing	An application supported on an amount of hardware that automatically adjusts to the size of the demand thereby saving money by using less hardware when demand is light an d more when the demand is heavy.
246	Scratch	A language created by MIT containing colorful characters and easy for beginners to write programs without syntax errors

247	Scripts	Similar in a way to the scripts used by Hollywood stars, a script in programming terms is a line by line set of instructions for a computer program to follow. These are often used for automation or for generating dynamic page content.
248	Secondary storage	Secondary storage refers to the long-term data storage options found in a device. This includes hard disk drives (HDD) and solid-state drives (SSD). When you save a file to your computer, it is sent to secondary storage.
249	security	The protection against access to, or alteration of, computing resources through the use of technology, processes, and training.

250	self-directed learning	A process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.
251	self-efficacy	An individual’s belief in his/her ability to succeed in specific situations or accomplish a task, which strongly influences how he/she approaches goals, tasks, and challenges.
252	Semantic Error	A legal program that creates incorrect results for some input.

253	sequence	An ordered set of instructions. To arrange instructions in a particular order.
254	server	A computer or program dedicated to a particular set of tasks that provides services to other computers or programs on a network.-------A computer that provides some service and is accessible over the internet.
255	simulate;	simulate: To imitate the operation of a real-world process or system.

256	simulation	Imitation of the operation of a real-world process or system over time.
257	SoC	System on a chip. A single integrated circuit that integrates all or most components of a computer including CPU, memory, I/O and bus. May including devices such as wireless modems. Contrast with motherboard-based PC architectures. Examples of SoCs include Apple M1, Snapdragon, and ARMxxx chips.
258	software	Programs that run on a computing system, computer, or other computing device. Compare with hardware.-----A set of information that includes at least one program and optionally many programs and data files. The set of information is generally related and used with a specific goal in mind such as image processing Software.

259	software piracy	Illegal copying, distribution, or use of software.
260	Solid state disk (SSD)	Uses chips to emulate a rotating disk but with no moving parts. Much faster than rotating mechanical disks but currently not as much storage and more expensive.
261	source code	Programming statements and instructions written by a computer programmer.

262	Southbridge	connects the CPU to lower speed data components such as internet, keyboard, audio, USB, etc.
263	Speed of Light	Generally means the speed of light in a vacuum. It is about 1 foot per billionth of a second.
264	statement	A descriptive phrase that generates one or more instructions in a computer program.

265	STEM	Science Technology Engineering and Mathematics - The set of fields many educational institutions and governments are focusing on to improve enrollments and retention.
266	store;	A process through which digital data is saved within a data storage device by means of computing technology. Storage is a mechanism that enables a computer to retain data, either temporarily or permanently.
267	storage	A place, usually a device, into which data can be entered, in which the data can be held, and from which the data can be retrieved at a later time.

268	string	A sequence of letters, numbers, and/or other symbols. A string might represent, for example, a name, address, or song title. Some functions commonly associated with strings are length, concatenation, and substring.------- a) An ordered sequence such as a string of bits or characters. b) a string of characters.
269	Strongly Typed	A language is strongly typed if all type errors can be found at compile time
270	Structured data	This refers to data or information that’s been organized and “cleaned” in order to make it easier to search, manipulate and interface well with software applications. Structured data often is used for categories like names, addresses and credit card information but can be used for any quantifiable data category.

271	Supercomputer	A computer with a much higher than average performance
272	SW	abbreviation for software.
273	switch	A high-speed device that receives incoming data packets and redirects them to their destination on a local area network (LAN).

274	Syntax	The grammar for a language or the rules to decide if a statement is in the language but not the meaning.
275	Syntax Error	Creating a illegal program in the language by making an error such as a typo, insertion, deletion, or misuse of an element of the language. E.g. leaving off a trailing semicolon in Processing or misspelling a key word.
276	system	A collection of elements or components that work together for a common purpose. See also computing system.

277	tag	A field that identifies the contents of a data record.
278	TCP/IP	stands for "transmission control protocol/internet protocol." This term refers to the suite of protocols that connect computers on the internet. TCPs allow applications and devices to communicate with each other, while IPs allow devices to share data. Computer scientists can adjust the protocols that connect host computers, based on their unique needs.
279	Telepresence	A set of technologies which allows a person to feel as if they were present, to give the appearance of being present, and/or to have an effect as if present.

280	Tera	A prefix for a trillion (1012) as in a terabyte.
281	test case	A set of conditions or variables under which a person will determine whether the system satisfies requirements or works correctly.
282	Text	- a) just the set of bits that represents a stream of symbols in a language. It does not include any formatting information such as font or color. b) any representation of a set of symbols. c) text encoded in ASCII.

283	Thread	A thread is a “lightweight” subunit of execution of a process that can run in parallel with other threads in the process. It is a way to have parts of a process run simultaneously.
284	Time sharing	- Fairly splitting up time between running processes.
285	topology	The physical and logical configuration of a network; the arrangement of a network, including its nodes and connecting links. A logical topology is the way devices appear connected to the user. A physical topology is the way they are actually interconnected with wires and cables.

286	Tractable	- Solvable in a practical amount of time.
287	transform [data]	The process of removing errors, highlighting or exposng relationships, and/or making it easier for computers to process data.
288	troubleshooting	A systematic approach to problem solving that is often used to find and resolve a problem, error, or fault within software or a computing system.

289	Type	The kind of data that can be stored or referred to and has a specific set of operations that apply to it such as addition is an operation that is used on integers. Popular types are int, float, boolean. Processing supports types like color and string as well.
290	UAV	Unmanned Aerial Vehicle and autonomous drone
291	Unicode	A method for encoding a string of symbols as bits. This set of schemes can be used to represent nearly any symbol including Chinese. However, Klingon (plqaD) is not currently in the standard. However: http://en.wikipedia.org/wiki/ConScript Unicode Registry.

292	UNIX	- A variety of operating system that originated in the 70s as an independent project in Bell Labs and has grown to be the basis of many of today's operating systems including Linux and Apple distributions
293	URL	A Uniform Resource Locator or web address, is a reference to a web resource that specifies its location on a computer network and a mechanism for retrieving it such as HTTP or FTP
294	usability	The degree to which software can be used by specified consumers to achieve quantified objectives with effectiveness, efficiency, and satisfaction in a quantified context of use. Usability includes ergonomics and accessibility.

295	USB	Universal Serial Bus. A popular standard for creating a data path between computers and peripherals. It includes the capability of powering a device. More recently USB has been used as a power source alone, disregarding its data protocols.
296	user	A person for whom a hardware or software product is designed (as distinguished from the developers).
297	variable	A place in a running program where data is stored. For example the variable x might contain a number Like 42.

298	Vi	The classic text editor on a UNIX machine. Generally available on all UNIX based operating systems. The modern version of vi is vim.
299	Virtual Machine	A virtual machine is a software implementation of a machine that executes programs like a physical machine. The machine that is mimicked need not really have a hardware implementation but only exist as a virtual machine.
300	Visibility	- Said of a variable. A variable is visible if its contents can be accessed by its name. A local variable in one function might not be visible from inside another function.

301	Windows	The proprietary operating system distributed by Microsoft.