

2020 First Semester Review- AP Comp Sci

AP Test Format and Scoring

Videos- War Games, Warriors of the Net, Gagnum Style Broke YouTube, Fortnite and the Milly Rock, Undersea Cable that Linked the World, Starlink Network, Posting Rules for Teenagers, Modern Warfare 200GB File Size,

Fun & Games- Mr. Burrill Quiz, Mr Burrill Stories, Flippy Bit and the Attack of the Hexadecimals From Base 16, ASCII Art, Pixelization Wizard, Flippy Do, Coach Burrill's Binary Shirt, Global Computer Science Job Needs, How Many Millions of Lines of Code Does it Take, My Least Favorite Students this Semester, USC, Bear Visitors, Lakers, Dodgers, Snow, Power Outages, LEGO City

Unit 1

Number Systems, Decimal, Binary, Hexadecimal, ASCII, Abstraction, Radix Point, Decimal Point, Binary Point terms, Overflow Error, Y2K Bug, Pixel, Resolution, Density, RGB, File Storage Sizes, Bit, Byte, Kilobyte, Megabyte, Gigabyte, Terabyte, Petabyte, Exabyte, Zettabyte, Yottabyte, Lossless Compression, Lossy Compression, JPEG, MP3, MPEG-4, Digital Copyright, Creative Commons Copyright, Protocols, Bandwidth, Latency, Internet Protocol (IP), IP Addresses, ISP, IPv4, IPv6, DNS, DNS Spoofing, and DDoS, Internet, World Wide Web, Tim Berners-Lee, Bob Kahn, Vint Cerf, Paul Baran, and ARPANET

Unit 2

UDP, TCP, Fault Tolerant, Redundancy, Bit Rate, Ethernet Wire (Copper Wire), Fiber Optics, WiFi (Radio Wave), Hub, Router, Spider, Search Index, Ranking Algorithm, Page Rank, Spammers, Machine Learning, Data Center, HTTP, HTML, DDS, Firewall, Ping, Ping of Death, Proxy Server, LAN, and IP Packets

Unit 3

Why Learn to Code, How Computers Work, The Need for Programming Languages, User Interface, Processing and Storage, Input, Output, App Lab, Design Mode, Elements, App Development, Debugging, Documentation, Comment, Visualizer, Sequential Program, Event-Driven Program, App Development Planning Guide,

Unit 4

Variable, Value, Numbers, Strings, Operators, Expression, Evaluate, Assign, Assignment Operator, Watcher, Counter Pattern with Event, String Concatenation, Global Variable, Local Variable, Boolean Expressions, Conditionals, If-Statements, If-Else Statements, Logical Operators (And-Or), Patterns (If-Else-If), George Boole, Syntax Error, Logic Error, Run-Time Error, Overflow Error, Function (Procedure), Defining Functions, Calling Functions, Decision Maker App