Vocabulary for Tests #1 & 2

Ad Hoc – Wireless connection between two devices

Backbone – The hardware used in networking

Bandwidth – The speed at which the network is capable of sending data

Bridge – The connection between devices; regulates size by making packets

Cabling

Copper – the wire used in Cat5,5E,6 transmits at the speed of sound

Fiber Optic - Uses glass as a conduit; Transmits at the speed of light

DDNS – Dynamic Domain Name System - Service that maps domain name to IP address

DHCP – Dynamic Host Configuration Protocol - Automatic assigns IP addresses

DNS - Translates domain name into IP Address, different from DDNS

Ethernet – Transmission medium (copper or aluminum/copper coated wire)

Firewall - The virtual structure erected using either hardware or software to protect a computer or network for unwanted intrusion

FTP – File Transfer Protocol - A list of instructions used to transfer files between devices

Hop - Packet transition point between source and destination

HTTP – HyperText Transfer Protocol - A list of instructions used for standard web browsing

Hub - A simple device that shares bandwidth between all devices connected to it

IP – Internet Protocol - A list of instructions that travel in packets; contains a header (source, destination, pertinent info) and the data

IP Address - Decimal number that defines each device in a TCP/IP network

LAN – Local Area Network - Supplies network capability to computers in close proximity; Makes sharing resources easy

MAC – Media Access Control - Unique address used at the data link layer to identify each device

NETBios – Network Basic Input/Output System - Protocol for communication on local networks; works with Ethernet and Token Ring networks

NIC – Network Interface Card - Network adapter hardware that can supports either or both wired and wireless connections

P2P – Peer-to-Peer - Device communication without dedicated servers (client-server network)

Packet - One unit of binary data routed through a computer network

Ping - A utility used to test network connections

Router - A piece of hardware that joins two networks together; Directs traffic; determines priority of data

Switch - A piece of hardware that joins multiple computers

Broadcasts data only to device selected where hubs transmit all data to all connected devices

TCP/IP – Transmission Control Protocol/Internet Protocol - Provides connection-oriented communication between devices in both home networks and on the internet

UDP – User Datagram Protocol - Alternative to TCP; Most often used in gaming and videoconferencing

UNC – Universal Naming Convention - Identifies windows network resources by combining server name and share name

URL – Uniform Resource Locator - String of text that identifies a specific location on the internet

WINS – Windows Internet Naming Service - Converts NetBIOS names to IP addresses

Workgroup - A collection of computers on a local area network (LAN) that share resources

WWW – WorldWide Web - All global public web sites on server computers and client devices

CPU – Central Processing Unit – Chip that does all calculations necessary for data manipulation

HDD – Hard Disk Drive – Storage device consisting of hard platter(s) spinning using magnetically charged (+/-) to store information

FDD – Floppy Disk Drive – Old system of storing information magnetically

MOBO – Motherboard – System board on which all components are connected

Clockspeed – measured in MHz (Megahertz) or GHz (Gigahertz) – Speed at which computing takes place

Optical Drive – Reads information using a laser

RAM – Random Access Memory – Used by computer to store instructions needed by the CPU

ROM – Read Only Memory (BIOS) – Instructions that do not change, typically startup information

WORM – Write Once Read Many (Early CD ROM Disks)

Byte – the smallest recognizable piece of stored data

Bit – the smallest piece of data (8 bits = 1 Byte)

VGA – Video Graphics Array – Form of data displayed on a monitor

HDMI – High Def Interace – HiDef video display format

Pointing Device – Mouse, pen, Finger (on-touch screens)

Input Device – Keyboard, microphone, camera

Output Device – Printer, speakers, monitor,

Sound card – turns sound into 1s & 0s for storage and reconverts for listening

Video – turns graphics into 1s & 0s for storage and reconverts for listening

Ethernet/Wifi – connection pieces required to form computer networks

Bus Cable – the wires used to connect peripherals to the MOBO or devices together

USB – Universal Serial Bus – a form of connection that allows hot swapping

Serial – A connection type using unidirectional information passage

Parallel – A connection type using bidirectional information passage

Kilobyte – 1K bytes of stored information

Megabyte – 1M bytes of stored information

Gigabyte – 1B bytes of stored information

Terrabyte – 1T bytes of stored information

FDM® - Fused Deposition Modeling, the 3D printing technology used in 3D Printing

Slicing - Turning a 3D model into 2D layers used for 3D printing

Filament - Material used to build 3D printed parts

Extruder - The “hot glue gun” of your 3D printer; it uses filament to draw out the layers of 3D printed parts

Build Plate - Surface on which 3D prints are built

Gantry - Moves the carriage in the x-axis and y-axis

Carriage - Carries the extruder

Solid Modeling - Define and construct solid objects with real world dimensions

Digital Sculpting - Simulate clay sculpting. Push and pull surfaces to create detail and texture

Polygon Modeling - Define outer surfaces like edges and corners to create intricate models

Parametric Modeling - A feature in 3D design programs, use dynamic variables for object parameters so that entire designs can be easily altered or scaled

Mesh - The collection of vertices, edges, and faces that make up the surface of a 3D model

Purge Line - Straight line drawn across the front of the build plate at the start of every print

Print Preview - Gives important time and material estimates

Raft - Flat surface that provides a large foundation for print adhesion

Support Material - Removable scaffolding structure that is built underneath overhangs (unsupported sections) of your printed parts

Infill - Support structure built inside of the printed parts, measured in density

Shells - Outside walls that make up the perimeter of printed parts

Layer Height - The height of each layer of a printed part

Thingiverse® - The largest online 3D printing community and library of printable files, accessible at thingiverse.com

Thing - A 3D model uploaded to Thingiverse, this can be a single object or several, and typically comes with pictures and printing instructions

Remix - A cornerstone of Thingiverse. This is when a user edits or builds upon a Thing to customize it in some way while providing attribution to the original designer

Licensing - Describes how a designer permits the community to use his/her creation (i.e. whether it can be remixed or sold commercially)

Makes - When a user downloads and prints another designer’s model, then uploads a picture of it to demonstrate its appearance and printability

Collection - A curated folder of Things by users, and a great way to organize Things for your class

Business Plan - a document setting out a business's future objectives and strategies for achieving them

Outside Investment - External financing refers to capital investments from individuals or entities without cooperative membership.

Financial Obligation - Financial obligations represent any outstanding debts or regular payments that you must make.

Marketing - Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.

Product Design – The process of imagining, creating, and iterating products that solve users' problems or address specific needs in a given market.

Product Research - Information on the specific and required characteristics of a service or a product.

Production - The action of making or manufacturing from components or raw materials.

Executive Summary - a concise overview of your business plan.

**Company Description –** An explanation of who you are, how you operate and what your goals are.

**Products and Services – A description** what you’re selling, with a focus on customer benefits.

**Market analysis -**  a quantitative and qualitative assessment of a market. It looks into the size of the market both in volume and in value, the various customer segments and buying patterns, the competition, and the economic environment in terms of barriers to entry and regulation.

**Strategy -** Overall game plan for reaching prospective consumers and turning them into customers of the products or services the business provides

**Implementation – The roadmap of your organization for bring your product to market**

**Organization and Management Team -** Outline of your company's organizational structure. Identifying the owners, management team and board of directors.

**Financial plan -** A brief analysis of your financial data, featuring a ratio and trend analysis for all financial statements

Operating Plan - the section of your business plan where you dig into more of the nuts and bolts of your business, areas like: production/manufacturing, inventory, and distribution.