Student's Name/Initials	/	Date	Teacher's Initials	Date

Networking 3 STUDENT PROFILE

DIRECTIONS: Evaluate the student using the applicable rating scales below and check the appropriate box to indicate the degree of competency. The ratings 3, 2, 1, and N are not intended to represent the traditional school grading system of A, B, C, and D. The description associated with each of the ratings focuses on the level of student performance or cognition for each of the competencies listed below.

PERFORMANCE RATING
3 - Skilled--can perform task independently with no supervision
2 - Moderately skilled--can perform task completely with limited supervision
1 - Limitedly skilled--requires instruction and close supervision
N - No exposure--has no experience or knowledge of this task

COGNITIVE RATING
3 - Knowledgeable--can apply the concept to solve problems
2 - Moderately knowledgeable--understands the concept
1 - Limitedly knowledgeable--requires additional instruction
N - No exposure--has not received instruction in this area

A. Safety and Ethics

3	2	1	N	
__	__	__	__	1. Identify major causes of work-related accidents in offices.
__	__	__	__	2. Describe the threats to a computer network, methods of avoiding attacks, and options in dealing with virus attacks.
__	__	__	__	3. Identify potential abuse and unethical uses of computers and networks.
__	__	__	__	4. Explain the consequences of illegal, social, and unethical uses of information technologies (e.g., piracy; illegal downloading; licensing infringement; and inappropriate uses of software, hardware, and mobile devices).
__	__	__	__	5. Differentiate between freeware, shareware, and public domain software copyrights.
__	__	__	__	6. Discuss computer crimes, terms of use, and legal issues such as copyright laws, fair use laws, and ethics pertaining to scanned and downloaded clip art images, photographs, documents, video, recorded sounds and music, trademarks, and other elements for use in Web publications.
__	__	__	__	7. Identify netiquette including the use of e-mail, social networking, blogs, texting, and chatting.
__	__	__	__	8. Describe ethical and legal practices in business professions such as safeguarding the confidentiality of business-related information.

B. Employability Skills

3	2	1	N	
__	__	__	__	1. Identify positive work practices (e.g., appropriate dress code for the workplace, personal grooming, punctuality, time management, organization).
__	__	__	__	2. Demonstrate positive interpersonal skills (e.g., communication, respect, teamwork).

C. Student Organizations

3	2	1	N	
__	__	__	__	1. Explain how related student organizations are integral parts of career and technology education courses.
__	__	__	__	2. Explain the goals and objectives of related student organizations.
__	__	__	__	3. List opportunities available to students through participation in related student organization conferences/competitions, community service, philanthropy, and other activities.
__	__	__	__	4. Explain how participation in career and technology education student organizations can promote lifelong responsibility for community service and professional development.

D. Media and Topologies

3	2	1	N	
__	__	__	__	1. Recognize the following logical or physical network topologies given a diagram, schematic or description: Star, Bus Mesh and Ring.
__	__	__	__	2. Specify the main features of 802.2, 802.3, 802.5, 802.11, and FDDI networking technologies, including: Speed, Access method (CSMA / CA and CSMA / CD), Topology, and Media.
__	__	__	__	3. Specify the characteristics (e.g., speed, length, topology, and cable type) of the following cable standards: 10BASE-T, 10BASE-FL, 100BASE-TX, 100BASE-FX, 1000BASE-T, 1000BASE-CX, 1000BASE-SX, 1000BASE-LX, 10 GBASE-SR, 10 GBASE-LR, and 10 GBASE-ER.

__ __ __ __ 4. Recognize the following media connectors and describe their uses: RJ-11, RJ-45, F-Type, ST, SC, IEEE 1394, Fiber LC, MT-RJ, and USB.

__ __ __ __ 5. Recognize the following media types and describe their uses: Category 3, 5, 5e, and 6, UTP, STP, Coaxial cable, SMF optic cable, and MMF optic cable.

__ __ __ __ 6. Identify the purposes, features and functions of the following network components: Hubs, Switches, Bridges, routers, gateways, CSU / DSU, NICs, ISDN adapters, WAPs, Modems, Transceivers, Firewalls.

__ __ __ __ 7. Specify the general characteristics (e.g., carrier speed, frequency, transmission type and topology) of the following wireless technologies: 802.11, 802.11x, infrared, and Bluetooth.

__ __ __ __ 8. Identify factors which affect the range and speed of wireless service (e.g., interference, antenna type and environmental factors).

E. Protocols and Standards

3 2 1 N

__ __ __ __1. Identify a MAC address and its parts.

__ __ __ __2. Identify the seven layers of the OSI model and their functions.

__ __ __ __3. Identify the OSI layers at which the following network components operate: Hubs, Switches, bridges, routers, NICs, and WAPs.

__ __ __ __4. Differentiate between the following network protocols in terms of routing, addressing schemes, interoperability and naming conventions: IPX / SPX / NetBEUI, AppleTalk / AppleTalk over IP, and TCP / IP.

__ __ __ __5. Identify the components and structure of IP addresses (IPv4, IPv6) and the required setting for connections across the Internet.

__ __ __ __6. Identify classful IP ranges and their subnet masks (e.g., Class A, B, and C).

__ __ __ __7. Identify the purpose of subnetting.

__ __ __ __8. Identify the differences between private and public network addressing schemes.

__ __ __ __9. Identify and differentiate between the following IP addressing methods: Static, Dynamic, Self-assigned (APIPA)

__ __ __ __10. Define the purpose, function and use of the following protocols used in the TCP / IP Suite: TCP, UDP, FTP, SFTP, TFTP, SMTP, HTTP, HTTPS, POP3 / IMAP4, Telnet, SSH, ICMP, ARP/ RARP, NTP, NNTP, SCP, LDAP, IGMP, and LPR.

__ __ __ __11. Define the function of TCP / UDP ports.

__ __ __ __12. Identify the well-known ports associate with the following commonly used services and protocols: FTP, SSH, Telnet, SMTP, DNS, TFTP, HTTP, POP3, NNTP, IMAP4, and HTTPS.

__ __ __ __13. Identify the purpose of network services and protocols (e.g., DNS, NAT, ICS, WINS, SNMP, NFS, Zeroconf, SMB, AFP, and LPD.

__ __ __ __14. Identify the basic characteristics of the following WAN technologies: Packet switching, Circuit switching, ISDN, FDDI, T1 / E1 / J1, T3 / E3 / J3, OCx, X.25.

__ __ __ __15. Identify the basic characteristics of the following internet access technologies: xDSL, Broadband Cable, POTS / PSTN, Satellite, and wireless.

__ __ __ __16. Define the function of the following remote access protocols and services: RAP, PPP, SLIP, PPPoE, PPTP, VPN, and RDP.

__ __ __ __17. Identify the following security protocols and describe their purpose and function: IPSec, L2TP, SSL, WEP, WPA, and 802.1x.

__ __ __ __18. Identify authentication protocols (e.g., CHAP, MS-CHAP, PAP), RADIUS, Kerberos, EAP.