

Name: _____

Study Guide – NC Online Test of Computer Skills

On the following pages, you'll find many vocabulary words and other notes that will help you as you review for the NC Online Test of Computer Skills. This test will include 72 items (total) that will be split into four sections with 18 items each. There will be approximately 36 multiple choice questions that assume a thorough understanding of all of the vocabulary in this handout, other computer vocabulary that you have learned throughout your years in kindergarten through 8th grade, along with a good understanding of making right choices (making ethical decisions), which includes copyright issues and using copyrighted materials under the fair use doctrine. The performance questions will be given through the NCDesk Integrated Java Applications Suite, which includes a text editor/word processing program, a database application, a spreadsheet application, a simulated e-mail composer, and a windows management application.

When you take the NC Online Test of Computer Skills, the question or task will be presented near the top of the screen, while the multiple choice answers or simulated document will be found in the lower part of the monitor. Each question (performance or multiple choice) will have a RESTORE button that will allow you to remove any changes you have made to the document and the FLAG checkbox will allow you to flag a question and return to it before you complete that section of the test.

Study hard and do your best!!!

For Multiple Choice online practice tests, and other information about the test, go to Computer Skills Test Internet page: <http://wmms.net/walters/student/skillstest.htm> (Scroll to the bottom of this web page for the practice tests.)

Windows Management Notes and Tips

To demonstrate your knowledge and skills of working between various computer applications, you may be given performance-based problems on managing and working between one or more windows.

Vocabulary:

ACTIVE WINDOW – The window in which a user is currently working or directing input. An active window is typically at the top of the windows layers and is distinguished by the color of its title bar.

INACTIVE WINDOW(S) - A window that users are not currently interacting with. This window cannot receive keyboard input. Inactive windows usually have gray title bars.

MAXIMIZE – To display a window at its largest size.

MINIMIZE - To hide a window that is currently displayed on screen. The window is removed and represented with an icon or file name on the taskbar.

RESIZE - To change the height or width of a window. Usually this is done with the mouse by catching a corner or side of the window and dragging in or out.

CLOSE or EXIT – To remove a window from active or inactive status on the desktop.

Working with the NCDesk Windows Manager

You may be required to perform several Windows Management tasks during the test. They may include:

- Maximizing, minimizing, and closing windows;
- Resizing and moving windows on the desktop.
- Typing text, selecting text, copying and/or pasting text into a second window.

On the test, the NCDesk Management window usually contains one or two open “documents” that you will need to manage according to the test directions. You can open up to six documents in the NC Desk Manager by using the Windows Manager Toolbar at the top left corner of the desktop.

Database Notes & Tips

Vocabulary:

ASCENDING ORDER – Arrangement of data from lowest to highest in sequence. For example: A-Z or 1-9.

DATABASE – A software application that helps manage large collections of information. A simple database might be a single file containing many records, with the same set of fields. Data can be sorted and searched by one or more criteria.

DESCENDING ORDER – Arrangement of data from highest to lowest in sequence. For example: Z-A or 9 -1.

ENTRY – Data that is keyed in a field. An example of an entry would be a phone number that is typed in a “phone number” field.

FIELD – A place in a database record where a category of information can be entered or located.

FILE – A set of related records in a database

RECORD – A collection of related fields and entries.

List View of a Database

Records appear in rows in the list view. They are a collection of related fields and entries. In this database there are nine records.

	Planet	Prob Temp	# of Moons	Len. of Year	Surf. Gravit	Dist from Sun	Atmosphere
1	Mercury	620	0	88	0.37	36,000,000	sodium, helium, hy
2	Venus	900	0	225	0.88	37,250,000	carbon dioxide, ni
3	Earth	72	1	365	1	93,000,000	nitrogen, oxygen,
4	Mars	(10)	2	687	0.38	141,750,000	carbon dioxide, ni
5	Jupiter	(240)	17	4,332	2.64	483,800,000	hydrogen, helium,
6	Saturn	(300)	22	10,826	1.15	887,950,000	hydrogen, helium,
7	Uranus	(340)	15	30,676	1.15	1,764,500,000	hydrogen, helium,
8	Neptune	(370)	8	59,911	1.12	2,791,050,000	hydrogen, helium,
9	Pluto	(370)	1	90,824	0.04	3,653,900,000	methane

Entry – A single unit of information in a database.

Fields appear as columns in the list view. They are a category of information. In this database, there are seven fields.

RELATIONSHIP – The comparison of two pieces of information using logical operators: less than (<), greater than (>), equals (=), less than or equal to (<=), greater than or equal to (>=). Other comparison terms to recognize are “at most,” meaning less than or equal to, and “at least,” which translates as greater than or equal to.

SEARCH – The process of finding all records of a database that meet a certain rule, statement, or criterion. A search may be based on a single statement, rule, or criterion, or a combination of statements, rules, and criteria joined by AND, OR, and AND/OR.

SORT – Arranging information in a specific order (usually ascending and descending). Sorting a database does not eliminate any records; it simply rearranges the data in a different order.

Sorting Tips

- When you see these words in a database instruction, they are usually “hints” that you will be SORTING:
 - Highest – lowest
 - Greatest – least
 - Alphabetical order
 - First – last
 - Note that “put them in order” implies ascending order
- To sort:
 - In the NCDesk application, click on the field name or category that you wish to sort the database by and click on one of the sort icons, or by going to the DATA Menu > SORT > and chose ASCENDING OR DESCENDING.

Filtering/Searching Tips

- Searching or filtering a database eliminates records that do not meet certain rules or criteria.
- To filter in NCDesk:
 - Click on the FILTER icon, or go to the DATA menu > FILTER.
 - When the FILTER dialog box opens, carefully select the FIELD(s), the COMPARISON, and key in the data that is being compared. Be careful – if you are comparing more than one field, check the question to see if your connecting word is AND or an OR. Click on the FILTER button and the results of the filter will be displayed.
 - To restore the eliminated records, click the RESTORE button or click the FILTER icon.

Hard concept: When you see terms such as “greater than / less than,” or “at least / at most” you will filter the database rather than sort. Ask yourself, “Do I want to rearrange the order of information (sort), or do I want to extract records that meet specific criteria (filter/search)?”

Inserting New Fields or Records in an NCDesk Database

- You may be asked to add a FIELD or a new RECORD to an existing database. You will find these commands under the INSERT menu.

Getting Help in the NCDesk Database

If you understand the concepts of Sorting and Searching/Filtering, you will have little problem completing the Database Performance questions. If you need help, click on the HELP>USING THE DATABASE from the main menu. A window will appear with links to all of the NCDesk Database functions. These links will not tell you what to do – you will still need to understand the concepts of sorting and searching/filtering of a database.

Spreadsheet Notes & Tips

Vocabulary:

ROWS go horizontally—a side by side layout of boxes

COLUMNS go vertically—an up and down layout of boxes

CELL—the block created where a column and a row intersect each other

CELL ADDRESS—the location of a cell on the spreadsheet (like Bingo – give letter first, then number)

DATA ENTRY BAR—the bar at the top of the spreadsheet used to enter data into the cell that you have selected

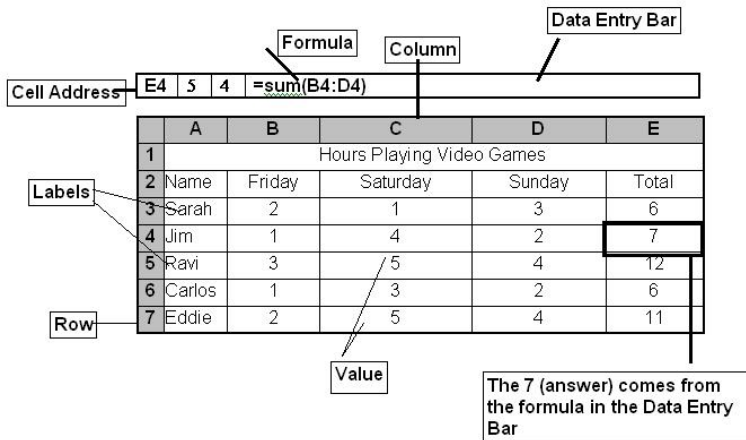
CELL RANGE—a group or block of cells in a spreadsheet. The range highlighted below is B3 through D4. It is written as B3:D4

	A	B	C	D	E
1	Hours Playing Video Games				
2	Name	Friday	Saturday	Sunday	Total
3	Sarah	2	1	3	6
4	Jim	1	4	2	7
5	Ravi	3	5	4	12
6	Carlos	1	3	2	6
7	Eddie	2	5	4	11

CELL RANGE
=B3:D4

General Notes:

- You need to understand that even though a spreadsheet and the list view of a database look similar, the names for the parts of the database and spreadsheet are different
- Learn to name the spreadsheet parts. See below:



Points to remember about spreadsheets:

- There are 3 types of data that you can enter into a spreadsheet-- VALUES, LABELS, and FORMULAS.
 - **VALUES** are numbers (like in cell B4);
 - **LABELS** are text (like in cell A5); and
 - **FORMULAS** are mathematical calculations (like what is in the data entry bar to get the answer for cell E4)
- One of the main uses of spreadsheets is to forecast or to predict! Spreadsheets are often used to answer "WHAT IF..." questions.
- Sorting data is as easy in a spreadsheet as it is in a database. To sort data, click on the column that is to be sorted and then click the appropriate icon to sort.

	A	B	C	D	E
1	Hours Playing Video Games				
2	Name	Friday	Saturday	Sunday	Total
3	Sarah	2	1	3	6
4	Jim	1	4	2	7
5	Ravi	3	5	4	12
6	Carlos	1	3	2	6
7	Eddie	2	5	4	11
	Total	9	18	15	38

$=SUM(B3:D3)$ or
 $=B3+C3+D3$

$=SUM(B3:B7)$ or
 $=B3+B4+B5+B6+B7$

Writing Formulas:

- All formulas begin with an equal (=) sign. No exceptions!
- If you don't use the equal sign, then the software thinks that you are inputting text, rather than a formula.
- When a formula is written, a cell's address is typically used rather than the value (number) in it. If a cell's value changes, then the formula automatically recalculates the answer.
- Use the following symbols as operators: + add – subtract * multiply / divide
- Spreadsheets can also use functions such as SUM, AVG and DIV
- See the following examples.

Walt Disney's students have taken three tests. He wants to know their test averages:

The screenshot shows a spreadsheet with the following data:

	A	B	C	D	E
1	Student Name	Test 1	Test 2	Test 3	Average
2	Mickey Mouse	100	91	85	92.0
3	Minnie Mouse	75	100	95	90.0
4	Donald Duck	77	97	79	84.3
5	Daffy Duck	95	81	72	82.7

The formula bar for cell E2 shows: $=AVG(B2:D2)$

The formula for cell E2 would be:

$$=(B2+C2+D2)/3$$

The parentheses indicates order of operation—add up the cells first, then divide by 3 (the number of grades)

Or
 $=AVG(B2:D2)$ This formula tells the computer to average the cell range from B2 through D2.

Working with the NCDesk Spreadsheet

- By clicking on the NCDesk icons (very similar to MS Works icons), you can perform the majority of the tasks needed to answer test questions.
- INSERTING rows and columns in the NCDesk Spreadsheet is very easy. To insert a new row, simply click below the row where you want the new row to appear. Go to INSERT menu > ROW. To insert a new column, click on the column that is left of where you want the new column to appear and go to the INSERT menu > COLUMN.
- One of the most important features of a spreadsheet is the ability to create charts or graphs to illustrate data. This task can be accomplished in the NCDesk Spreadsheet by highlighting the data to be included. (Be careful – many students highlight data that should not be part of the graph!) Click the appropriate CHART ICON on the toolbar, or go to DATA>CHART on the menu and select the most appropriate chart for the questions you are answering.

E-mail Notes and Tips

Vocabulary

- E-mail addresses consist of a **USERNAME** and a **HOST** or **DOMAIN** name separated by the "@" symbol.
Example: Debbie@wcpss.net (In this case, "Debbie" is the USERNAME, and "wcpss.net" is the domain name.)
- The **SUBJECT** is usually a short phrase to let the recipient know what the email is about or contains.
- The **BODY** or **MESSAGE** may be short or long depending on what the sender needs to communicate.
- An **ATTACHMENT** is a separate document that you can attach to and send with the e-mail message. It might be a document, such as a report that you need to send to a teacher, or it could be a photograph or another type of computer file.

Working with NCDesk Mail

- You may attach a file by clicking on the paper clip icon, by pressing the CTRL key and "A", or by going to the ATTACHMENTS window and browsing to the file you wish to attach.

Other Notes:

KEYBOARD UTILIZATION • DESKTOP PUBLISHING • WORD PROCESSING

ALIGNMENT -- Positioning of lines in a text or a paragraph: on the left, on the right, centered or justified (aligned to the right and left).

BOLD -- A style of text that makes a letter or word darker and thicker to stand out in a document.

COPY -- To make an exact copy of information in your document, so you can place in order to duplicate it in a new location.

CURSOR -- The blinking line, box, or arrow on the computer screen. The cursor marks your position on the screen, showing you where any new text you type will appear, or where to click to activate a program.

DELETE -- A key used to erase characters.

DESKTOP PUBLISHING -- Using features of word processing/DTP software to format and produce documents, letters, reports, flyers, and newsletters with graphics.

EDIT -- To make changes in a document or presentation.

ENTER -- The key used to begin a new line in a word processor, or to enter information into a spreadsheet. It is the same as clicking OK in a dialog box.

FONT -- The shape and style of text.

GRAPHIC -- Images/pictures created, edited, and/or published using a computer.

HIGHLIGHT/SELECT -- To choose part of a document by clicking and dragging over it with the mouse to highlight the text.

HOME ROW -- Keys on the keyboard with fingers of the left hand are on A-S-D-F and fingers on the right hand on J-K-L-;

INDENT -- To set the first line of a paragraph in from the margin in a word processing document.

LANDSCAPE -- The page setup that permits a document to be printed in a horizontal position.

LINE SPACING -- The span between lines of text. (Reports are typically double-spaced. Business letters have single-spaced paragraphs with double space between the paragraphs.)

NUMERIC KEYPAD -- The portion of a keyboard, set up like an adding machine or calculator used to enter numbers and equations quickly into the computer.

PAGE SETUP -- The term in reference to the way a document is formatted to print.

PASTE -- To insert the last information that was cut or copied into a document. Cut and paste can be used to move information within or between documents.

PORTRAIT -- The default page setup that prints the document vertically.

PRINT -- To put what is on the computer screen on paper. It creates a paper copy of the document created on the computer.

RETRIEVE -- Open a saved document.

SAVE -- To store information on a floppy disk, hard drive, flash drive, or CD for later use. (Work should be saved often, every 5 or 10 minutes, to make sure your latest changes are safely recorded.)

SAVE AS -- To save a document with a new name.

TEXT --the written or printed material, which forms the main body of a document or file.

THESAURUS -- A feature in most word processors that suggests synonyms for a chosen word.

WORD PROCESSING -- Using keyboarding skills to produce documents such as letters, reports, manuals, and newsletters.

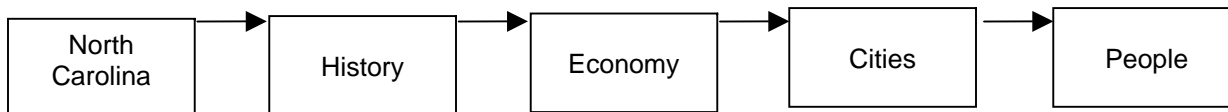
WORD WRAP -- This occurs when you get to the end of a line and as you continue typing, the text will automatically move to the next line.

WYSIWYG -- WYSIWYG is an acronym for "What You See Is What You Get" and is pronounced "wizzy wig." WYSIWYG simply means that the text and graphics shown on your screen exactly match your printouts.

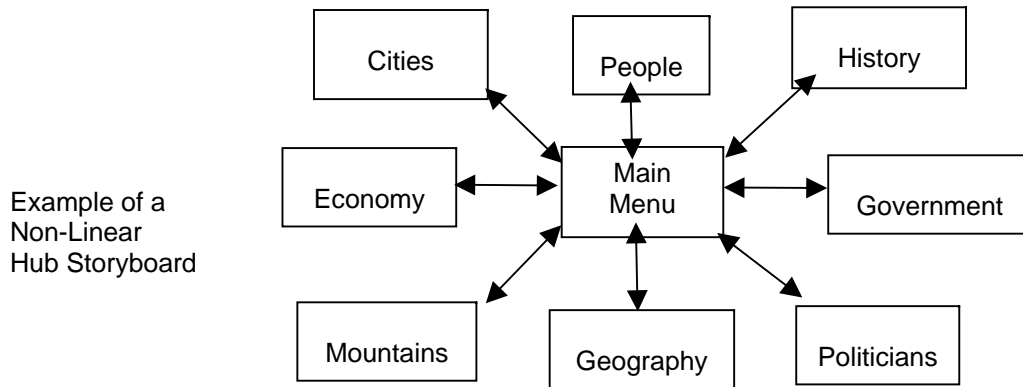
MULTIMEDIA VOCABULARY

MULTIMEDIA is defined as any presentation or program that combines two or more types of media, such as graphics, sound, video, animation, and/or text. Two of the most popular forms of multimedia that students are familiar with are video games and Internet web sites. Programs that you might have used to create a multimedia presentation are Macromedia Flash, Hyper Studio, and Microsoft PowerPoint.

LINEAR PRESENTATION -- A story or presentation where each event occurs in certain order. This type of presentation that has a beginning and an end. Linear presentations move in a straight line, either forward or backward.



NON-LINEAR PRESENTATION – Navigation in this type of presentation is based on choices listed in a menu on a storyboard. The Hyper Studio screen shot above shows a variety of buttons that links the user to different parts of a presentation. A user might jump from screen 1 to screen 5 to screen 3, based on the menu items and choices made.



PRESENTATION -- An oral report that may include audio, text, graphics, and the use of presentation software application such as Flash, Hyper Studio, and PowerPoint.

STORYBOARD -- A graphic organizer or set of drawings used for planning a multimedia presentation. All of the aspects of the presentation such as graphics, sounds, content, and navigation are preplanned on a storyboard.

LINKS -- Connectors that link web pages, cards, images, or words together and allow a viewer to move through a presentation.

BUTTONS – Similar to links; found in Hyper Studio and PowerPoint presentations.

CREDITS – Refers to the creator and/or sources of information used in a multimedia presentation.

SOCIETAL • ETHICAL USES VOCABULARY

ACCEPTABLE USE POLICY (AUP) -- A set of rules and guidelines that are set up to regulate Internet use and to protect the user.

ANTIVIRUS SOFTWARE -- An application designed to search for viruses and repair files on a computer.

COMPUTER VANDALISM -- The intentional act of destroying computer files or computer networks.

COPYRIGHT -- Law granting a legal right to a copyright holder or author, which requires their permission to make non-archival copies of the work in question.

CPU -- The main chip that allows computers to do millions of calculations per second and makes it possible for users to write letters and balance your checkbook.

EMERGING TECHNOLOGIES -- Technologies that are new and in the developmental stages; not in widespread use

FAIR USE AND MULTIMEDIA GUIDELINES -- The fair use doctrine provides educators with the right to make reasonable copies of copyrighted materials without specific consent of the author for purposes of criticism, comment, news reporting, teaching, scholarship, or research. The guidelines permit the use of copyrighted works in teaching, if certain factors are considered, including: the purpose and character of the use (commercial vs. educational), the nature of the copyrighted work, the amount of the work copied in relation to the work as a whole, the effect of use on the potential market for or value of the work.

FIREWALL -- Technology that prevents users from visiting inappropriate web sites, and protects the network from unauthorized users.

FREEWARE -- Software written and then donated to the public, so anyone is free to copy it and share it with their friends. This is not the same as shareware or commercial software, which is supposed to be paid for.

HACKER -- An unauthorized person who secretly gains access to computer files.

HARDWARE -- Part of the computer system such as a keyboard, screen, mouse, joystick, printer, speakers, etc.

MONITOR -- The device with a screen used to show computer images.

MOUSE -- A tool used to move the cursor and pointer around the screen.

NETWORK -- A system of connected computers that allows the sharing of files and equipment. There are two types of networks: local area network (LAN) and wide area network (WAN).

ONLINE SAFETY -- Precautions taken to protect personal information and images from being misused by others.

PASSWORD -- A code for the security protection to allow access to a computer or the computer programs.
PRINTER -- A hardware device used to make a paper copy of what is created on the computer.
PUBLIC DOMAIN -- Software written and then donated to the public. Anyone can use and copy public domain software free of charge, but it is not always the same quality as commercial software.
SECURITY -- Protection of computer, computer files or a computer network from use without permission of the owner or owners.
SERVER -- A special computer used to store programs and files, and then sends it out to other computers one or all at a time.
SHAREWARE -- Software that can be tried before you purchase.
SOFTWARE/APPLICATIONS -- Programs that allow you to accomplish certain tasks such as write letters, analyze numbers, sort files, manage finances, draw pictures, and play games.
STANDALONE COMPUTER -- A computer that does not rely upon any other computer or server to work.
TROJAN HORSE -- Type of computer virus that is disguised as a useful application.
VIRUS -- A computer program designed to damage computer files.
WORM -- A computer file designed to do damage that goes through a computer and possibly a network.
TELECOMMUNICATIONS • INTERNET VOCABULARY
ACCEPTABLE USE POLICY (AUP) -- A set of rules and guidelines that are set up to regulate Internet use and to protect the user.
ATTACHMENT or ATTACHED FILE -- a separate document that you may send with an e-mail message. It might be a document, such as a report that you need to send to a teacher, or it could be a photograph or another type of computer file.
BOOLEAN OPERATORS -- Connecting terms such as AND, OR, NOT that can often be used in keyword searches to refine search criteria.
BROWSER -- Software used to view various kinds of Internet resources found on the World Wide Web.
COOKIES -- Small text files identify a user's personal preferences and settings and allows the web site's server to retrieve your information from its database.
E-MAIL -- Sending and receiving messages through a computer network. This process requires a computer, modem or network connection, and an e-mail address. It is convenient because all messages are sent and received immediately over short or long distances.
HOST -- The name given to a computer directly connected to the Internet. Host computers are associated with computer networks, online services, or bulletin board systems. The host name is often referred to as the "domain name."
INTERNET -- A global network of thousands of other computer networks that offers e-mail and information retrieval services to millions of people.
KEYWORD -- A word or reference point used to describe content on a web page that search engines use to properly index the page.
LINKS -- Connections that bridge one image, page, or word to another by clicking on a highlighted word or phrase.
MODEM -- A device that permits a computer to transmit and receive data over a telephone line.
ONLINE RESEARCH -- Research that utilizes primary and secondary electronic resources such as CD-ROM, networked, and Internet encyclopedias, dictionaries, databases, video conferences, E-mail, etc.
SEARCH ENGINE -- Software that searches, gathers and identifies information from a database based on keywords, indices, titles and text
SEARCH STRATEGIES -- There are 3 basic ways to begin a search. 1. Try to guess at the URL. 2. Use subject directories provided by some search engines. The selected resources are grouped by subject, categories, and subcategories that can be used for keyword searches or to browse the categories. 3. Use a search engine for large searches using unique keywords or combinations of keywords to narrow the search.
TELECOMMUNICATIONS -- The act of sending and receiving information electronically between two or more computers via modem and phone line or local area networks (LAN). The exchange of information can be within a building or around the globe.
UNIFORM RESOURCE LOCATOR (URL) -- full website address. Example: http://www.wcpss.net
USER NAME -- First part of an e-mail address. Example: jsmith is the user name of the following e-mail address. jsmith@wcpss.net
VIDEO CONFERENCING -- Using a camera and phone lines or the Internet, video conferencing allows individuals at two or more sites to see and hear each other and to share and collaborate on graphical and text based data.
WILDCARD A character that can be used to represent any other character or series of characters in a statement. For instance, the wildcard "*" allows "S*ND" to refer to both "SAND" and "SEND." This is useful in searches when you don't know the exact text you are looking for.