Sample Questions – Computer & Internet Basics

Part I: What is a Computer?

1. What does Katy Nelson do on her computer? (plays games, emails friends, checks her school's activity schedule)

2. Name three different kinds of computers. (desktops, laptops, mainframes or super computers)

3. Name three things that are computers, although we don't think of them as such. (digital media players, cell phones, digital cameras)

4. What is a computer? (a device that manages and stores information)

Part II: Input & Output Devices

1. Name five input devices. (mouse, keyboard, scanner, microphone, webcam)

2. Name four output devices. (monitor, printer, speaker, earphones)

Part III: Processing & Memory

1. What is the CPU and what does it do? (central processing unit; sorts, manages and changes information)

2. What is storage memory? The computer's memory that doesn't disappear when the computer is turned off.

3. What is RAM? (The kind of memory that disappears when the computer is turned off; what's seen on the monitor)

4. What are two other kinds of storage memory? (CD ROM and flash memory)

5. What are ports? (plug-in places where devices and cables are plugged into the computer)

6. What do cables do? (carry information to and from the computer and its input and output devices)

Part IV: Proper Care & Protection

1. What are two proper care rules for the monitor? (Don't touch the screen and don't spray with chemicals.)

2. What are two proper care rules for the mouse? (handle gently, use on flat surface)

3. What are four proper care rules for CDs? (handle on edges, don't place on anything that could scratch them, store in a plastic container, slide gently in a tray to be sure it's lying flat)

4. What shouldn't be placed near the keyboard? (foods and liquids)

5. What is computer hardware? (the computer and all the things plugged into it)

Part V: Software

1. What is "software?" (the programs that make it possible for the computer to do many different things)

2. What is the most important software program? (the operating system)

3. Which operating systems do most computers use? (Windows)

4. What four things do operating systems do? (help computer work with input and (output devices, help other software programs work on the computer, helps us find and organize programs and files, displays icons.

5. How can you activate the help menu? (with the F1 key or by clicking the help icon)

Part VI: The Internet

1. What is the Internet? (a collection of millions of computers throughout the world, all connected by a "network."

2. What is a browser? (a program that's used to get on the Internet)

3. What is the most commonly used browser? (Internet Explorer)

4. What appears when you click the browser program? (home page)

5. What is a search engine? (a program that searches the Internet for a web page that contains what you're looking for)

6. Name three kids' search engines. (Yahoo kids, Ask for Kids, Kidsclick)

7. Name the 11 safety rules for using the Internet. (never give your last name, never give your address, never give your phone number, never tell where you go to school never email a picture of yourself to someone you've met online, get a parent if someone says something online that makes you uncomfortable, never meet an online acquaintance unless a parent comes along, never give your password to anyone, always follow your family's Internet rules, never open an email from someone you don't know, never order anything online unless your parents are there, or have given you permission to place the order)

Computer & Internet Basics Pre-Test

Directions: Write your answer in the space below each question.

1. Name three things that get information into a computer.

2. A desktop is one kind of computer. Name two other kinds.

3. What does "CPU" mean?

4. What are the two kinds of memory in a computer?

5. What is a "flash drive?"

6. How should CDs be stored?

7. What is "software?"

8. What is a "browser" program?

9. Define the term "Internet."

10. What program do you use to find something on the Internet?

Our Computer & Internet Basics Unit

Dear Parent:

As you know, computers have become an increasingly essential part of our lives. As such, it is vitally important that your child have a basic understanding of this crucial technology.

With that in mind, we will start our Computer & Internet Basics unit in a few days. The unit will have seven lessons: (1) What is a Computer? (2) Input and Output Devices; (3) Processing and Memory; (4) Proper Care of the Computer; (5) Software; (6) The Internet; and (7) A Unit Review.

I would like to ask for your help in this unit. I have attached a unit outline with this letter. Please look it over, and review the information with your child. It would also be helpful if you could use a home computer with your child to practice some of the concepts and skills that will be introduced. This will be particularly important when we discuss the Internet. It is very important that your child learn to use browsers and search engines in order to do research projects in the years to come. These are vital skills he or she will be able to use later in life, also. Please note that we will be discussing safety issues when using the Internet. These also are extremely important and we would like you to emphasize them at home. I would encourage you to establish some Internet usage rules that would be appropriate in your household and, if you have not already done so, download blocking programs that will protect your child from inappropriate sites.

Thank you very much for your cooperation.

Sincerely,

Computer & Internet Basics Outline

I.   Lesson One: What is a computer?

    A. Different kinds of computers

        1. Desktop
        2. Laptop
        3. Mainframe and supercomputer
        4. Others

    B. Computers we don't see, but are there, in

        1. Cars
        2. Airplanes
        3. Home appliances

    C. Computers that we don't think of as computers

        1. Digital media players
        2. Cameras
        3. Cell phones
        4. Others

    D. Definition: a device (machine) that manages and stores all kinds of information

        1. Numbers
        2. Words
        3. Music
        4. Pictures
        5. Other

II.   Lesson Two: Input & Output Devices

    A. Input Devices

        1. Mouse
        2. Microphone
        3. Webcam
        4. Keyboard
        5. Scanner

B. Output Devices

    1. Printer
    2. Monitor
    3. Speakers
    4. Earphones

III.   Lesson Three: Processing & Memory

A. CPU or Central Processing Unit

    1. Sorts and manages information
    2. Known as the "brains" of the computer

B. Storage memory: stays in the computer when turned off

    1. Hard drive
    2. Flash drive
    3. Compact Disk

C. RAM: disappears when computer is turned off

    1. What's seen on monitor
    2. Must be saved
    3. Files

D. Ports, cables, wireless devices

IV.   Lesson Four: Proper Care & Protection

A. Caring for the monitor

    1. Don't touch screen
    2. Don't spray with chemicals

B. Caring for the keyboard

    1. Food – prohibited
    2. Drinks – prohibited

C. Caring for the mouse

    1. Use on flat surface
    2. Don't handle roughly

D. Caring for disks

    1. Handle on edges
    2. Don't lay on things that can scratch
    3. Store in plastic container, other

E. Never force cable into port

V. Lesson Five: Software

A. Operating systems

    1. Windows
    2. Others (OS X, Linux, Unix, etc.)

B. What operating systems do

    1. Help computer work with input and output devices
    2. Help other software programs work on the computer
    3. Helps people organize and find programs and files
    4. Displays icons that, when clicked, allow you to operate software and hardware

C. Applications: software that allows you to do many different things on computer

    1. Three ways to start applications
    2. Menus
    3. Icons
    4. The help menu and the F1 key

VI. Lesson Six: The Internet

A. Definition: collection of millions upon millions of computers connected by a "network"

B. Browser programs

    1. Gets computer on the Internet
    2. Home pages

C. Search engines

    1. Searches for what you're looking for on the Internet
    2. Kids' search engines
    3. Search boxes, website listings and how to use them

D. Safety Rules for the Internet

1. Never give last name
2. Never give address
3. Never give phone number
4. Never tell where you go to school
5. Never email a picture of yourself to someone you've met online
6. Get parent if someone says something online that makes you uncomfortable
7. Never meet an online acquaintance unless a parent comes along
8. Never give your password to anyone
9. Always follow your family's Internet rules
10. Never open an email from someone you don't know
11. Never order anything online unless your parents are there, or have given you permission to place the order

VII. Lesson Seven: Review
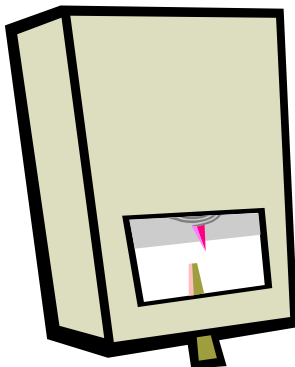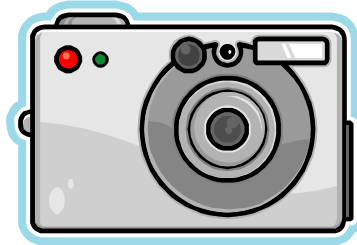
Computer & Internet Terms

Directions: Some computer and Internet terms are found below. Knowing what they mean will help you better understand computers and how they operate.

1. Computer:

2. Laptop:

3. Mainframe:

4. Desktop:

5. Input device:

6. Output device:

7. Storage memory:

8. RAM:

9. CPU:

10. Flash drive:

11. CD:

12. Port:

13. Cable:

14. Monitor:

15. Hardware:

16. Software:

17. Application:

18. Operating system:

19. Help menu:

20. Internet:

21. Home page:

22. Browser:

23. Search engine:
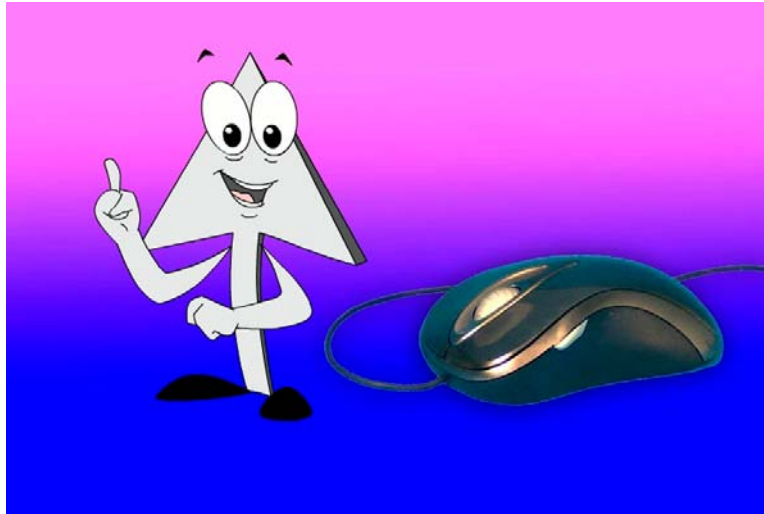
24. Search box:

25. Internet safety rules:

Is <u>This</u> a Computer?

Directions: Some things don't look like computers. Even so, they really *are* computers. Put a check mark next to the thing that is a computer. Cross out anything that isn't a computer. The pictures show a calculator, digital radio, thermostat, camera, cell phone, and a small GPS navigation system.

More on Mercer and Cursors

If you have used a computer, you probably know that a cursor is the thing you move around to get to different places on what you see on the monitor.

The cursor is often shaped like Mercer – as an arrow. But a cursor can have many other shapes, too. When you type a report, the cursor often looks like a straight up-and-down line.

Sometimes the cursor looks like a cross, a square, a circle, a capital "I," or other shapes. The cursor's shape depends on the program you're using.

Most people use a *mouse* to move the cursor. But you don't need a mouse to do it. Some people use the *cursor keys* at the bottom right of the keyboard. The keys have arrows on them. When you press the up arrow key, the cursor moves up. The down arrow key moves the cursor down. The right cursor arrow key moves the cursor right. And the left cursor arrow key moves the cursor to the left.

Some computers, usually laptops, have a *touchpad* to move the cursor. You move your finger on the pad and the cursor will move the same direction your finger moves.

Some laptop computers have a small *pointing stick* near the center of the keyboard that you can push around to move the cursor. The stick looks somewhat like the top of a pencil eraser.

Do you remember what you have just read? Test yourself by writing in the space below the four ways to move cursors.

The Modem: An Important Input & Output Device

You saw many input and output devices in the video. There's another kind of device that's both an input *and* output device. It allows computers to receive and send information from all over the world. It's called a modem.
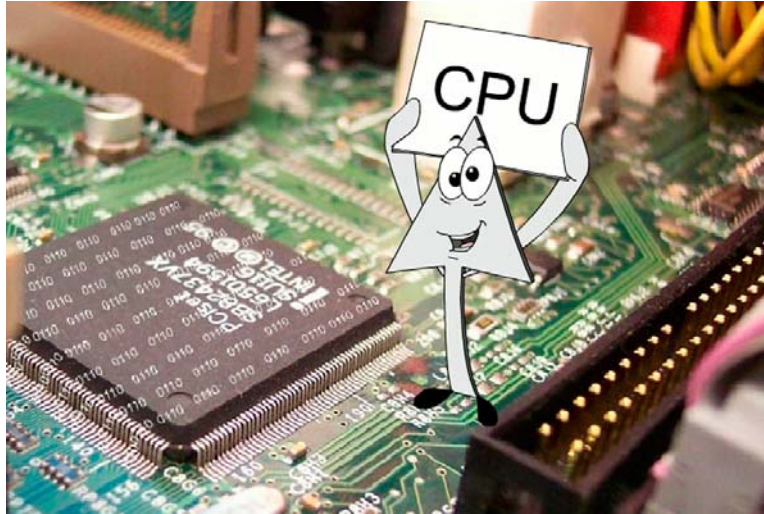
Some modems are found inside the computer. Some are found outside the computer and are attached by a cable. Modems receive and send information through telephone lines, cables, satellites and other devices.

Modems are one of the most important parts of the computer because they allow us to talk back and forth to others all around the world (on Internet phones). They also allow us to receive and send written messages, music, pictures, videos and other kinds of information.

If you have a computer at home, it almost certainly has a modem. Find out if it's a phone modem, a cable modem, a satellite modem or another kind. Write what kind it is below.

Processing & Memory: Faster & Bigger

Information in CPUs is processed – changed this way and that – at blazingly fast speeds. In fact, the speeds are so rapid that we can't even begin to imagine how fast they really are. <u>Billions</u> of numbers can be added, subtracted, divided and multiplied in a matter of seconds, for instance. That's fast! Scientists, engineers and people in large businesses need to process huge amounts of information. Moreover, they need everything to be mistake-free. So it's no wonder that they depend on computers and their CPUs. Fortunately, CPUs get faster all the time.

Computer memory gets larger all the time, also. More RAM allows the computer to work faster. Larger storage memory allows the computer to store more information. Computer scientists try to make CPUs still faster and storage and RAM memory even larger.

They also try to make computers more dependable. One way is to improve storage memory.

One part of a hard drive is a spinning disk on which the information is placed. Because the disks spin so much, they eventually wear out. So computer scientists have looked for more reliable storage memory devices. Flash drives have no moving parts, so they don't wear out. But the information in flash memory devices can be lost after a year or so. So they're not perfect, either.

The latest attempt to find a better storage memory device is called a "memristor." It's unlike any other memory device, and scientists think it may be perfect for storage memory. It doesn't wear out and its information isn't lost over time.

Taking Care of Your Computer

Directions: How well do you take care of your computer? Check the boxes next to the statement that applies to you. The more checked boxes there are, the better you take care of your computer.

❑   I never touch the monitor screen.

❑   I never spray cleaning chemicals on the monitor screen.

❑   I always use the mouse on a flat surface and treat it gently.

❑   I never eat snack foods when working on the computer.

❑   I never put liquids near the computer keyboard.

❑   I always handle CDs and DVDs by the edges.

❑   I never put CDs or DVDs on anything that can scratch them.

❑   I always put CDs and DVDs in a plastic storage container.

❑   I gently slide CDs and DVDs in the tray to make certain they're lying flat.

❑   I never jam cables or other devices into ports.

Dangerous Software

If your computer has an Internet connection, it must be protected from dangerous software programs called viruses, worms and spyware. Written by criminals, these programs can enter your computer through its Internet connection and can either damage it, destroy the information in its storage memory or steal important information such as credit card, social security, and bank account numbers.

Operating systems have programs called "firewalls" that help protect your computer from many of these dangerous programs. But firewall programs don't always protect the computer. For that reason, computer experts say that everyone should have additional programs that protect against these destructive and dangerous programs.

The dangerous software also can get into your computer if you share disks with other people. Their computer may be infected and when they transfer a file from the computer to the disk, it can be infected with the virus. When you put the disk into *your* computer, the infection passes into it.

Another way viruses, spyware and worms may get into your computer is through email. That's why you should never open an email from someone you don't know. It's especially important that you never open a picture file or any other file attached to an email. That attachment may be a dangerous computer program.

Is your family's computer protected against programs written by criminals? Has it ever been infected by a virus, worm or spyware? If so, what happened to the computer? How was it fixed?

Computer & Internet Basics Review Outline

Directions: Fill in the blank spaces in the outline.

   I.   Lesson One: What is a computer?

        A. Different kinds of computers

                1.
                2.
                3.
                4.   Others

        B. Computers we don't see, but are all around us

                1.
                2.
                3.

        C. Things that we don't think of as computers, but really are

                1.
                2.
                3.
                4.   Others

        D. Definition of a computer:

           Examples of computer information:

                1.
                2.
                3.
                4.
                5. Others

  II. Lesson Two: Input & Output Devices

        A. Input Devices

                1.
                2.
                3.
                4.
                5.

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    B. Output Devices

        1.
        2.
        3.
        4.

III. Lesson Three: Processing & Memory

    A. CPU or Central Processing Unit: what it is and what it's known as

        1.
        2.

    B. Storage memory: stays in the computer when turned off. Examples

        1.
        2.
        3.

    C. RAM: Information disappears when computer is turned off

    D. Ports, cables, wireless devices

IV. Lesson Four: Proper Care & Protection

    A. Caring for your monitor: two rules

        1.
        2.

    B. Caring for the keyboard: two rules

        1.
        2.

    C. Caring for the mouse: two rules

        1.
        2.

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      D. Caring for disks: three rules

          1.
          2.
          3.

  V. Lesson Five: Software

      A. Operating systems: examples

          1.
          2. Others

      B. What operating systems do

          1.
          2.
          3.
          4.

      C. Applications: three ways to start

          1.
          2.
          3.

  VI. Lesson Six: The Internet

      A. Definition:

      B. Browser programs

         1. What they do:
         2. Where they take you:

      C. Search engines

         1. What they do:
         2. Where they take you:

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D. Internet Safety Rules

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

Computer & Internet Basics Unit Evaluation, Page 1

Part I

Directions: Put a "T" next to all true statements and an "F" next to all false statements.

___ 1. A computer is a device that stores and manages information.

___ 2. There are computers in airplanes, but not in cars.

___ 3. Three kinds of computers are desktops, laptops and flash drives.

___ 4. Cell phones and digital media players are computers.

___ 5. A mouse is an output device.

Part II

Directions: Put an "O" on the blank space if the item is an output device and an "I" on the blank space if the item is an input device.

1. Scanner ___

2. Monitor ___

3. Webcam ___

4. Headphones ___

5. Printer ___

Part III

Directions: Define the terms.

1. RAM _____

2. CPU _____

3. Port _____

4. Browser_____

5. Search Engine _____

Computer & Internet Basics Unit Evaluation, Page 2

Part IV

Directions: Draw a line from the device to its proper care rule.

Device	How to Care for It
Keyboard	Handle by its edges
Mouse	Never force a cable into it
Monitor	Keep food and liquids away
CD	Never touch or spray with a chemical
Port	Move on a flat surface

Part V

Directions: Fill in the blanks.

Four things that operating systems do are _____,

_____,

_____,

and _____.

You can get to the help menu on most programs by pressing the _____.

Part VI

Directions: In the space below, name seven Internet safety rules. You will get extra credit for every additional rule you can name.