

**Central Academy**  
Student Consultant, Stephanie Johnson  
Community Partner, Donna Roberts

## **I. Consulting Situation**

### **Organization**

Central Academy began in 1994 and offers elementary school education for kindergarten through second grade. It is an independent organization, yet it is closely affiliated with Central Baptist Church in that they share resources. Central Academy's mission is to "provide an atmosphere whereby children of all races will receive not just academic instruction but also Biblical based education." Central Academy also strives to "assist [students] in discovering and developing their individual uniqueness and talents. In this regard CA will aide and establish learning experiences that will assist each student to become a maturing Christian Person, as well as a responsible and productive member of society."

### **Facilities**

Central Academy is housed in Central Baptist Church's main building located at 2200 Wylie Ave in Pittsburgh, PA. This building is also used for the worship location of the church and as a facility for Central Outreach, which offers a daily lunch program. Specifically, Central Academy is located in the first floor portion of the building and has three classrooms, including the computer lab, and multipurpose space that serves as a cafeteria and play area. Also, Mrs. Roberts and Mrs. White both have there own offices. The building is equipped with high-speed Internet access, provided by Wireless Neighborhoods, and a computer lab with eight computers for the Academy.

### **Programs**

Central Academy includes the standard K4 through second grade curriculum and has 24 students. One of CA's primary educational resources is the curriculum provided by A Beka Books. CA also incorporates art, music, and P.E. into their curriculum.

### **Staff**

The Academy Director, Donna Roberts (CP), is in charge of all administrative duties associated with the academy, such as payroll. Deon White is Mrs. Roberts's secretary and Central Academy's art instructor. She keeps track of attendance, final grades, students' tuition, and performs other secretarial duties. Lastly, Central Academy employs two teachers, Ms. Murry who teaches 16 students in grades K4 and K5 and Mr. Paladin who teaches eight students in first and second grade. The staff has varying degrees of computer experience from, none at all to using computers for office tasks everyday. For example, Mrs. White frequently uses Microsoft Word to create calendars and letters that are distributed to parents and Mrs. Roberts frequently uses email.

### **Technology Environment**

Both Mrs. Roberts and Mrs. White have PC's, with Windows 98 and Windows 2000 respectively, and are connected to the Internet through the church's network by a network server. The academy cluster computers specifications are as follows: OS: Windows 98, Pentium II, 32 – 64 MB of Memory, and 2.0 – 4.0 GB HD. At the beginning of the consulting situation the computers in the lab were not yet connected to the network. CA's computers have a variety of software, but the programs they use most frequently by the staff are Microsoft Word, Excel, Internet Explorer, and

Quick Books. Only Mrs. Roberts currently has an email address through Hotmail. Besides computers, the office has two printers, a copier, and a fax machine.

### **Technology Management**

Central Academy's current technology management consists of a recently formed technology group affiliated with Central Baptist Church, which includes church administrators, trustees, and at least one member with significant technical expertise. The group has no technology plan and deals with technology issues on a case-by-case basis. The specifics of all the technology from a website affiliated with Central Baptist Church to basic computer maintenance for all Church related computers is solely the job of a part time personnel who comes in when needed. In other words, the technology employee takes care of any technology related needs including maintenance, repair, and installation. As of date, the group has limited effectiveness, in that there are still pending technology concerns.

Two aspects that are immediately noticeable about their technology environment are that individual computers lack any back up for their immediate files and many of the computers actively using the Internet lack anti-viral software.

### **Technology Planning**

Currently, there is no technology planning in place in terms of a document or a committee although, if an opportunity were to arise the previously described technology group may handle it.

### **Internal & External Communications**

Internal communication such as file sharing does not happen that often and critical information like the account records for Central Academy is backed up on floppy disk by Mrs. Roberts. Any other internal communication takes place through email, by phone, or in person. External communication is achieved mostly through calendars, bulletins, letters, and by phone. For example, Central Academy sends out a calendar with all the events for a specific month. Central Baptist Church also has a static website, <http://www.pgcentralbaptistchurch.org/>, through which people can contact the church or find information about the Church. Also on this website is a section where Central Academy has information on its school policies and its mission statement

### **Information Management**

Again, most of Central Academy's important information, such as financial reports, is stored on individual computers. However, information for the students are stored by paper, because of the difficulty of the existing program, School of Tomorrow, which is suppose to help manage information, like tuition payments and attendance. This does not present a serious impediment to CA because of their small number of students.

### **Consulting Tasks**

#### **Consulting Task I: Making the Computer Lab Ready for Use**

The computer lab at Central Academy had not yet to be set up, meaning that the computers were not hooked up and not connected to the Internet. However, shortly after the consulting task began, a Central Baptist Church technology employee completed the computer lab. Once the computers were available for use it was necessary to assess their capabilities and to further prepare them for use by the students. If the computers are not maintained properly then Central Academy could lose its computer resource and thusly be unable to use computers as a way to educate their students. This affects Central Academy's mission because it effectively removes a viable area in

which their students could become skilled. Also, Internet safety measures such, as virus software and site blocking software not only protect the computers but the children as well.

### **Approach:**

- Delete any unnecessary programs and files
- Create user profiles necessary for connecting the network and sharing files
- Orient Mrs. Roberts with various aspects of computer maintenance, including Window's maintenance programs.
- Connect a network printer
- Make frequently accessed programs more easily accessible
- Check and adjust monitor settings
- Research and acquire virus software
- Research and acquire Internet site restrictive software.

### **Expected Outcomes**

As a result of this task it is expected that the computer lab will be maintained by Mrs. Roberts who will be able to perform some software based computer maintenance. Also, the computers will have only necessary programs and files, including those for virus protection other Internet utilities.

### **Feasibility**

Because of the size of the computer lab (8 machines) this task is very feasible. Even though computer maintenance is an ongoing process it shouldn't take more than a few weeks of the consulting period to clean up the computers and to show Mrs. Roberts the details of basic maintenance. Also, the consultant is already knowledgeable in this area and has used and preformed software and limited hardware based computer maintenance.

### **Consulting Task II: Develop Curriculum for Students to Learn Computer Skills**

After the computer lab at the academy was finished, it was a great opportunity for Central Academy to meet its mission by schooling young students in the basics of computers, especially for students who do not have access to a computer otherwise. A computer based curriculum or one that utilizes computers would expose some students for the first time to an area that is critical for later education and will help others sharpen their skills. Computing is also an area that may interest students more than other subjects they have studied, again helping CA meet its mission of cultivating its students' talents.

### **Approach:**

- Find software not necessarily related to learning about computers that could be utilized such as games that teach reading or math skills
- Involve teachers in developing a curriculum for the students and discuss any specific goals they may have for such a class
- Learn what the students might be interested in or about areas where they could improve
- Look for current activities that could somehow be incorporated into the computer lab
- Coordinate with other local education programs in terms of resources and ideas
- Have teachers become familiar with any acquired educational software.

## **Expected Outcomes**

Once the curriculum has been developed Central Academy will then be able to use computers to enhance the learning experience of its students. The teachers will be more familiar with computers and available resources and will be able to lead their classes in an organized computer time. In addition, the teachers will also be able to change the curriculum as needed. The students will benefit by gaining further exposure to a necessary subject, which again meets Central Academy's Mission of developing their students' uniqueness and talents.

## **Feasibility**

Acquainting Central Academy's students with computers in a way that is effective is the reason Central Academy obtained computers and is an aspect of the curriculum that Mrs. Roberts desires to develop. Having achieved Internet connectivity the gathering of resources will be more easily facilitated. Since the task is not that heavily based on understanding technology, but rather its utilization, it is well within the expertise of the community partner and the consultant.

## **II. Outcomes and Recommendations**

### **Consulting Task I: To make the computer lab ready for use**

The computer lab at Central Academy before the consulting task began was in a state of disuse. The donated computers had not yet been plugged in or hooked up to the network. Also, no software updates or regular maintenance had been done. These and other issues prevented the computer lab from being used by the students and effected Central Academy's ability to meet its mission of developing their students' individual talents. The consulting task was to fix the lab computers and in the process increase the technical skills of Mrs. Roberts so that she could perform essential computer maintenance.

### **Outcomes:**

- Mrs. Roberts and the consultant removed unusable and irrelevant software.
- Mrs. Roberts was shown and practiced finding files and folders using the search feature in windows.
- Mrs. Roberts and the consultant added new software necessary to the lab including: Google Toolbar (installed for easy access to a search feature and a pop-up blocking option) and various educational software from installation disks.
- One printer was added to the network and Mrs. Roberts and the consultant set the default printer settings on the individual computer lab computers.
- Mrs. Roberts added password protection to restrict access to only Central Academy students and staff with the assistance of a Hill House employee.
- Monitor settings were reviewed and adjusted by Mrs. Roberts and the consultant.
- Troubleshooting and basic maintenance were reviewed including: Scan Disk, Defragmenting, and Disk Cleanup Applications. Mrs. Roberts is now able to use these applications.
- A troubleshooting and basic computer maintenance tips guide was written by the consultant (See Appendix A)

Through this task, the organization has gained an increased capacity to meet its mission. Mrs. Roberts is now capable of installing and uninstalling necessary software and can perform software based computer maintenance and troubleshooting. Now, if there is a basic problem with the lab or new necessary software, Mrs. Roberts is able to handle the situation without outside help. For example, Mrs. Roberts installed necessary pop-up blocking software on the computers

without assistance. In addition, in terms of basic problems, if a critical file is accidentally deleted and prevents a program from working Mrs. Roberts can now uninstall and reinstall the software. The outcome is sustainable because the skills acquired will be used on a regular basis, allowing Mrs. Roberts to grow in her confidence and problem solving skills concerning computers. Also, documents describing the procedures to install and uninstall software and descriptions of maintenance and troubleshooting have been made available to Mrs. Roberts. This task has currently not foster a new vision of how technology can be used, but as Central Academy continues to utilize computers it may allow them to see that computers are very manageable and that it doesn't take a specialist to maintain an adequate level of technology.

### **Recommendation:**

#### **Create a Technology Plan**

It was apart of the original consulting task to create a technology plan for Central Academy, but due to time constraints and others tasks that took preference, the technology plan was never completed. The basis for the technology plan is to better able Central Academy to understand, use, and manage its current technology resources and to enable planning for problems and opportunities in the future. Even recently, one of the computers used by the secretary was infected by a virus and is now in a state of disuse. The computer was suppose to have virus software and if so needs to be configured to receive regular updates. Unfortunately, the computers vulnerability was unknown and its need for viral software left unchecked. Aspects like this could be included in a technology plan and prevent incidents in the future. Also, now that CA has a working computer lab, a technology plan could help complete and sustain new and current projects for the lab, helping CA meet its mission of developing its students' talents. Also a central document that outlines for instance computer specifications can allow the CP to consult someone knowledgeable about computers with any questions they may have without the person ever having to visit Central Academy. Lastly, a technology will help with envisioning where technology can take CA beyond its current capacity.

To start with, the technology plan Central Academy can first review other technology plans from similar schools. For instance the one already obtained during the consulting task, by Mrs. Roberts, is a good start. Second, when following the guidelines in the given resources try to involve the teachers at weekly staff meetings in ideas for future planning.

The technology plan should at least include the following\*:

- How the organization currently uses technology
- What aspects of technology CA would like to incorporate into the organization in the future
- A budget for implementing the plan.

These parts will allow CA to get a preliminary idea of technology resources and goals. As your technology plan grows and CA has a better understanding of the usefulness of technology planning it would be prudent include sections concerning the following.

The steps to achieve a more comprehensive technology plan are as follows\*

- An organizational profile, which includes contextual details such as funding, community programs, staff, current technical environment, and Central Academy's mission statement  
Technical Environment should include:
  1. A current catalog of cluster computers and other technology resources including CP's computer etc.

2. A list of the staff's skills including things like word processing
  3. Check what the current specs are for new software and computers, i.e. a good computer today has "blank" amount of memory. This will be helpful for evaluating resources and assessing an appropriate time to upgrade. Another example of this is when will the newest version of windows come out? This year or two years from now? This is important because you wouldn't necessarily want to buy a new computer or purchase an upgrade for your version of Windows if a new version is about to come out.
  4. Document all current software (check add remove/programs from the control panel to see a complete list.)
- A vision that incorporates future plans into the mission statement and helps clarify and justify goals.
  - A list of projects and their purpose or impact and the steps needed to achieve them. Specifically, in the case of the computer lab CA could:
    1. List the curriculum for different grades and discuss how CA could use technology to reinforce those concepts.
    2. Documentation of any new idea and support for its implementation
    3. Write an outline/work plan for new technology again these can include things like upgrades, new computers, and intervals at which to purchase new software.
    4. Research and document any potential software. This is important because some of the educational software on the market is beyond the capability of CA's current computers.
    5. Add a list of daily, weekly, monthly tasks to be preformed concerning technology an example of each is below.
      - Daily- Check the desktop for any missing program links
      - Weekly – Perform computer maintenance: like running Disk Cleanup, Update the webpage.
      - Monthly – Checking for any new educational software through online resources, making sure any virus software has been updated with new virus information.
  - A budget that outlines available funds, possible funds, and how the projects and intended purchases best fit the current and future operating budgets. Budgeting specifically for technology resources help makes technology a priority.
  - A timeline that incorporates both funding and project sub-objectives. This timeline is critical for planning, as it helps allocate resources such as staff, money, and time to achieving goals in the most productive way possible.
  - A schedule by which to update and annotate the tech-plan such that accomplishments can be documented, past shortcomings can be resolved and plans can be added.

\*Reports by Justin Sean Kenlon partnered with Citizens to Abolish Domestic Apartheid and a report by Jennifer Cerully and Agata Bugaj partnered with Hope Academy were consulted to create this recommendation.

### **Resources:**

<http://www.eTechPlanner.org/>: a website by Pennsylvania Department of Education that steps you through the importance of technology plans and how to create one.

<http://www.nctp.com>: National Center for Technology Planning, offers a guidebook for technology planning.

<http://www.progressivetech.org/Resources/index.htm>: PTP offers a Technology Assessment Guide and a Technology Planning Guide.

<http://www.npower.org/tools/techplanning.htm>: NPower has helpful documents on technology planning and a copy of Technology Literacy Benchmarks.

<http://www.techsoup.com/>: Techsoup in their How-To section has a long list of articles related to technology planning.

<http://www.cnet.com>, <http://www.zdnet.com>, <http://www.dell.com>, <http://www.bestbuy.com>, and <http://www.circuitcity.com>: by looking at what these websites advertise, CA can get a sense for what the current standards of computers are.

### **Consulting Task II: To develop a curriculum for computer lab usage**

Task II concerns assisting Central Academy in creating a curriculum in which they can utilize their computers. Specifically, finding and installing software pertaining to the subjects the students already learn and setting up a website for any computer related curriculum. Before the consulting task, the teachers had limited or no experience with computers and had not yet been familiarized with resources provided by the consultant.

#### **Outcomes:**

- Teachers and Mrs. Roberts are able to search for software and curriculum additions
- Software can be installed that the students and teachers are able to use. Specifically, the teachers can install software and preview it before instructing students.
- Teachers and Mrs. Roberts are able to adjust the computers to allow easy access to the software and to restrict setting changes, i.e. creating desktop icons and hiding folders
- Most pertinent curriculum topics have computer related programs such as: reading comprehension, Reader Rabbit; math skills, Number Munchers
- Teachers are able to setup software sharing over the network
- A list of resources exists for educational software (free and purchasable) and for educational websites
- Mrs. Roberts and the consultant created a webpage to display aspects of the computer curriculum, such as science related websites.
- Mrs. Roberts was able to edit aspects of the webpage including adding and removing pictures, pages, and links. (Appendix B)
- Mrs. Roberts was able to search for content to add to the webpage using various engines, including Google, Yahoo!, and MSN.

Two outcomes that are not expected to be observed are all the teachers being proficient in the programs used and all teachers being able to use the Internet to find more educational software resources. Not all the teachers are proficient in basic computer skills, like opening programs and editing documents, therefore it was difficult to move beyond that level in the time that remained. However, Central Academy still will obtain an expanded capacity because some of their staff will be able to complete the tasks listed above. Personnel installing their own software and updating the webpage will sustain the outcome. This has come about by instructing personnel in all aspects of the consulting task and having them complete certain aspects individually, like installing their own software and looking for pertinent sites to the curriculum.

Another outcome that has not been observed is a direct utilization of the website created during the consulting period. Central Baptist Church is in the process of changing their web host and hiring personnel to spearhead their website. As result CA's webpage was never uploaded. Regardless, Mrs. Roberts has gained some familiarity with HTML that will allow her to administrate the site created once CBC has decided on a web host.

Central Academy's mission is to "assist parents... [in] educating their children... and to assist students in discovering and developing their individual uniqueness and talents." The goals of the task help increase the teachers' capacity to instruct their students in new and exciting ways; by exposing the students to a type of education, they never had before, leading them to explore computers. One of the problems that the outcome may not be sustainable is the personnel's reluctance to try things on the computer and subsequently inhibiting their ability to increase their computer skills on their own.

The outcome has supported a new vision of technology, because personnel have begun to envision greater things for the provided resources. Specifically, the webpage at first was to be a place just for students to go during any class time and find links to educational websites. Now, Mrs. Roberts has expanded the target of the website and hopes to put HW assignments on it have parents visit, and to organize specific sections of the page geared towards different subjects, like Math.

### **Additional Recommendations:**

#### **I. Increase the capacity of Central Academy through additional Teacher Training**

Some teacher training was accomplished during the consulting period, but more could be done to expand the capacity of Central Academy, in terms of teacher proficiency with computers. A better learning environment can be achieved if teachers are comfortable with computers and can then assist the students with using software. Some of the teachers at Central Academy, due to limited instruction, have not had the opportunity to become familiar with basic aspects of computing. This leads to some students not being able to participate fully in computing which affects CA's mission to explore and cultivate the talents of its individual students.

Teacher training would also help with the sustainability of the outcomes in that teachers would be able to upkeep and expand the new curriculum and create better aspects for the following year. Additional training for one of the teachers already comfortable with computers will allow them to more effectively and confidently help other teachers and assist CA with their general technology needs.

Additional training can come from spending more time on the computer, either by exploring settings or surfing the Internet. Central Academy could setup a weekly time where teachers can get together and work in the computer lab and surf the Internet for educational resources. For more formal training, taking a computer class in basic or higher-level computer skills would be ideal.

### **Resources:**

<http://www.ccac.edu>: Community College of Allegheny County's Lifetime learning section of their website offers a catalog that lists several courses related to computer instruction. They have program specific training such as Power Point classes and general courses such as introductory and advance computing.



<http://www.carnegielibrary.org/locations/pccenter/classinfo.html>: Carnegie Library of Pittsburgh's Computer Education division offers several classes at no to little cost. The classes at Carnegie Library range from introductory courses that involve learning skills like using the mouse to how to purchase a computer. The library also offers courses in the following programs and websites: Hotmail, Microsoft Word, Publisher, and PowerPoint. The contact information for all the classes is on the website.

<http://www.ymcaofpittsburgh.org/ymca/programs/> (Life Skills Development & Educational Programs: Educational) The Pittsburgh YMCA at its Penn Hills location offers a Microsoft computer training class, which would be good for anyone seeking to gain greater proficiency in simple computer tasks.

<http://computer.howstuffworks.com/>: This website explains computers and various computer components. It may be helpful in understanding computers more in-depth.

<http://www.ckls.org/~crippel/computerlab/tutorials/index.html>,

<http://www.ckls.org/~crippel/computerlab/tutorials/mouse/page1.html>

The mouse aerobics section of this webpage (second link) is helpful for learning how to use the mouse. In addition, the other sections of the webpage offer tips on buying computers and maintenance.

<http://www.fgcu.edu/support/office2000/>: This website offers free online guide to Microsoft Office 2000, including Word, Excel, PowerPoint, and FrontPage

<http://www.microsoft.com/windows98/usingwindows/default.asp> : Microsoft's Windows 98 page offers articles on computing including how to surf the Internet and email.

**About the Consultant:**

Stephanie Johnson is a sophomore Ethics, History, and Public Policy major and a Computer Science minor. She currently does not have any definite career plans, but is considering attending law school.

## Appendix A:

### Computing Tips

#### Install:

To install software from an installation disk insert the disk into the disk drive. Wait a minute. If it doesn't automatically run, go to my Computer and click the D drive or if present the icon of the name of the program. Then find the .exe or the installation file and follow the instructions. If you download a program double click on the .exe file or if it came as a zip use MonkeyZip or WinZip program to extract the files and then click on the installation or .exe file. Follow the instructions. Note: If after you install a program if you experience problems with your computer you should try uninstalling.

#### Uninstall:

To uninstall a program go to Start Menu-> Settings -> Control Panel and then choose the "Add/Remove Programs" icon. You should get a list of programs on the computer. Select the one you no longer want and choose "remove". Then follow whatever instructions are given.

#### Disk Cleanup:

Running disk clean up helps free necessary space on your computer so that you can store more files. To run disk cleanup go to: Start Menu -> Programs -> Accessories -> System Tools -> Disk Cleanup. After opening the program choose C: from the drop down menu if it is not already selected. C just stands for the part of the computer where all the files are stored, also known as the hard drive. Once you have selected the drive i.e. C. review the checked boxes (none of the options remove files you need to keep) and accept the action.

#### Disk Defragmenter:

Disk Defragmenter reorganizes the information on the computer so that Windows can access it faster, thus making your computer run faster since Windows must access various information to run certain programs. To access Disk Defragmenter go to the same menu as Disk Cleanup and select Disk Defragmenter. Choose C as the drive to defragment. Disk Defragmenter normally takes a while depending on the amount of files on the computer. Sometimes Disk Defragmenter is unable to complete because of errors on the hard drive. If you receive such a message, run ScanDisk.

#### ScanDisk:

Through normal use of your computer, your hard disk drive can become cluttered and a bit messy. Also, folders can become cross-linked, file names can contain invalid or unknown characters or become damaged, and file names can become disassociated with their files. Scandisk can fix these and other problems for you. It's also a good idea to run Scandisk on a regular basis: once a week for Standard, and once a month for Thorough.

To run disk cleanup go to: Start Menu -> Programs -> Accessories -> System Tools -> Scandisk. Click the drive you want to scan, and choose either the **Standard** or **Thorough**. Click **Start**.

- The **Standard** test checks the files and folders on the selected drives for errors.
- The **Thorough** test will give you further options. It performs the **Standard** test plus checks your hard disk drive for physical damage. You can even specify to scan areas of your disk containing only data files, or just the areas with system files, or both.
- Both **Standard** and **Thorough** have a set of **advanced** options that help you to deal with lost file fragments, invalid files, and files that overlap the same disk space. You can also choose to keep a log file of what Scandisk finds.

(<http://www.microsoft.com/windows98/usingwindows/maintaining/tips/beginner/scandisk.asp>)

### **Icons:**

To add an icon to the desktop right click on the program you want, mouse over to the “send to” option, and then click Desktop. An icon will appear on the desktop.

### **Desktop:**

To change the desktop background right click on the desktop and choose “active desktop”. Then choose “Customize my Desktop” and click on the Desktop tab. Choose an appropriate picture from the list or go to the browse button to find a different file.

### **Hiding Files and Folders:**

To hide a file right click the file and choose properties. On the dialog that appears look for and check option of “Hidden.” The folder should become faded or disappear depending on if the view settings are set to show hidden folders. If the folder does not disappear or you want to see hidden folders go to the “My Computer” and open a new window. Then on the **View** menu, click **Folder Options** and then click the **View** tab and select the **Show all files** check box or Hide files box.

This information was found at

<http://www.microsoft.com/windows98/usingwindows/work/tips/advanced/>.

**Internet Explorer Settings:** To set the default homepage: click **Tools** on the tool bar for IE and then Internet options. You should see a text box that allows you to type in any webpage you like.

### **Searching for Files:**

Click on the start button in the lower left hand corner of the desktop, then mouse over to Find and then choose “Files and Folders”. Before searching you should unhide folders all folders because hidden files and folders do not show up using the search method.

### **Troubleshooting Tips**

- If a monitor, computer, or printer is not responding: Check the power cord. Make sure everything is securely plugged in to the machine and to the wall.
- If there's a problem with the internet connectivity or with the network printer receiving a document you should follow similar steps as above, checking to see whether Ethernet cord is plugged securely into the computer and into the outlet.
- If a program stops responding or the entire computer happens to freeze press Ctrl-Alt-Del and then choose the program that has “(not responding)” next to it or the program you want close and select the “end task” button. A moment later a confirm dialog box should appear and the “end task” button should be chosen. If the unresponsive program happens to be Explorer or after ending a program the computer is still unresponsive press Ctrl-Alt-Del twice to restart.

### **Resources:**

<http://www.computerhope.com/basic.htm> Offers a list of troubleshooting documents for problems associated with several versions of Windows.

<http://www.winnpsb.org/dhs/troubleshooting/bct.htm> Provides a list of hardware and software tips including what to do if the keyboard or mouse stops working.

<http://www.everythingcomputers.com/troubler.htm> Provides links to several other troubleshooting guides, some of which are specifically for Windows 98.

## **Additional Internet Resources:**

### **Educational**

[www.the-underdogs.com](http://www.the-underdogs.com) A free software site that also has an educational software section. Most of the software in this section is old, but there are a few classics like Number Munchers that can be useful.

<http://teacher.scholastic.com/technology/> A website with ideas on how to integrate technology and computers into an existing curriculum

### **HTML Guides**

The following are a list of HTML guides that offer descriptions of the basic HTML tags that were used to create the shell for Central Academy's computer curriculum page.

[www.davesite.com/webstation/html/](http://www.davesite.com/webstation/html/)

<http://archive.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimerAll.html>

<http://www.w3.org/MarkUp/Guide/>

### **Misc. Resources**

[www.google.com](http://www.google.com) Good for just about everything, Google can be used for searching for a variety of things including coloring pages for art, layouts for WebPages, technology-planning resources and specifically for pictures.

<http://teacher.scholastic.com/tools/> Offers a web tool to help develop a class homepage.

[www.download.com](http://www.download.com) download.com offers thousands of downloads including games, computer utilities, and educational software.

[www.giftsinkind.org](http://www.giftsinkind.org) This website offers a variety of discounted items for non-profits included Windows XP.

## Appendix B:

This is a screen capture of a preliminary website created for Central Academy.

