TECHNOLOGY OPERATIONS AND CONCEPTS LESSON / SIMULATION TEACHER GUIDE PART 3

NETS TECHNOLOGY OPERATIONS AND CONCEPTS STANDARDS

Students demonstrate a sound understanding of technology concepts, systems, and operations.

- Understand and use technology systems

- Select and use applications effectively and productively

- Troubleshoot systems and applications

- Transfer current knowledge to learning of new technologies

INTRODUCTION

Students are invited to participate in organizing a music library.

Instruction	Illustration
Good day, and welcome to part 3 of Technology operations and concepts. Today, we will be interviewing for a job at the company that houses the most used search engine on the World Wide Web, Google. We are currently at the place in the interview where it is our turn to show what knowledge we have of technology devices. Lets get started and remember we are a team, let's do this together.	Work for: Google

Our first question, which component allows you to see information…out of the 3 options: a monitor, a hard drive or a keyboard which option allows you to SEE information? That is correct the monitor displays information and allows the user to visually see it.	**Which component allows you to see information?**
Question two: Which component stores data (information)? Out of the 3 options we should be able to use some elimination strategies: for example, we just answered that the monitor allows us to visually see the information, so we can eliminate that from our selection: a hard drive or a keyboard. Correct a hard drive stores data and shares the information to the device.	**Which component stores data?**
Now, if we are going to work for Google, I would think that it is important to know how to turn on a computer, which icon represents the turn on function That's correct the middle option is the icon for turning a device on or off.	**Which Icon represents to turn on?**

Now, working for Google we will come across a number of viruses that will try to attack our devices. Which picture most accurately depicts what a virus would be described as?

That's correct the 1st selection is the right answer. Although sometime viruses can see like monsters taking over our computers, what a virus truly is, is a corruption, or takeover of data within our device. When data has been corrupted it usually changes the way a device works: ie. The speed, the files, or in some cases the whole device can crash

Which Picture best describes a Virus?

In order to prevent many viruses from coming through many devices are set up with a tool that stops unwanted communication. What is the name of that tool?

I hope the picture helped represent the correct answer; a firewall is the correct selection. A firewall is defined as a technological barrier designed to prevent unauthorized or unwanted communications between computer networks. In other words it keeps out the viruses and protects our data.

| Firewall | SPAM | VIRUS | SPYWARE |

Now remember we are applying for a job and showing them the skills that we know. We are all aware that there are some websites that we should not go to and in some cases this may happen, we just landed on the FBI's website and that is not where we intended to go, what icon would I select to go back?

That's correct if you are on the internet you can always select the back arrow to return to the previous page. Congrats you have made it through to the next round in the interview, please continue…
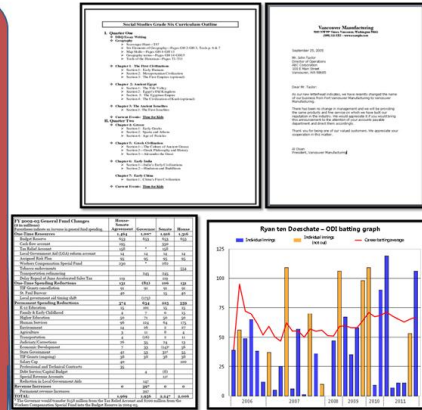
Just Landed on a wrong website how do I go back?

Google would now like to know what you know about documents and searches. Looking at these 4 options which one of these documents displays an outline? Think of the characteristics that we know outlines should have.
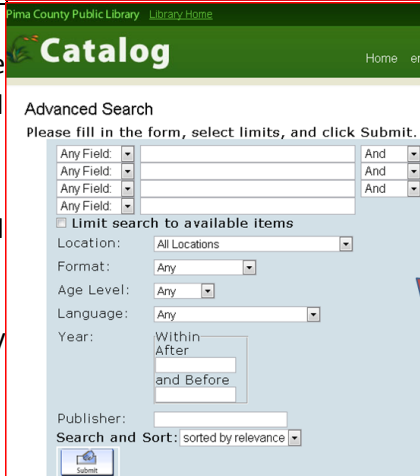
That's correct, based on the structure of option 1 this would be our outline. The other 3 would be considered: a letter, a spreadsheet, and a graph

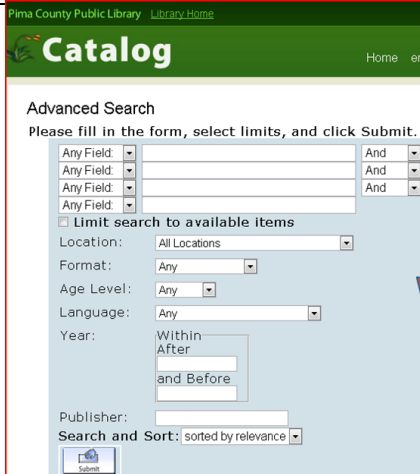**Which of these documents displays an outline?**

Google would like you to search for an author on the Pima County Public Library website. There are several search options also know as fields that will allow us to alter our search, the information that the website holds is saved in tables these tables are organized in columns and rows,   where would we go if we wanted to search by an author?

That's right I would have to change the field to say author, this will allow me to taylor my search to what I am looking for.

What do I click on to search by Author?

Once we have the search by author completed, where do I select to to sort the information that was given? Great! I would select search and sort, because it will allow me to narrow my selection

What do I click on to Sort?

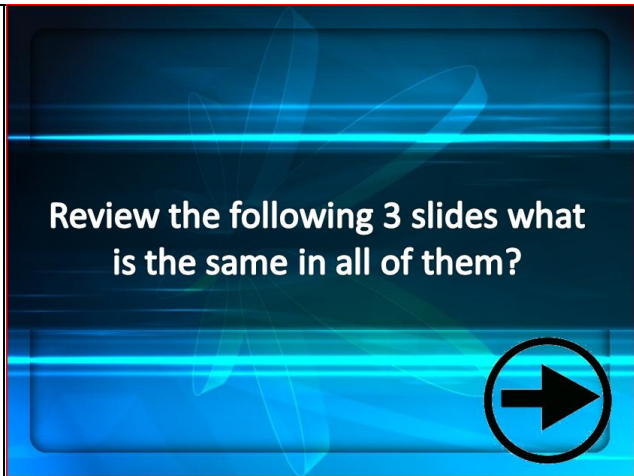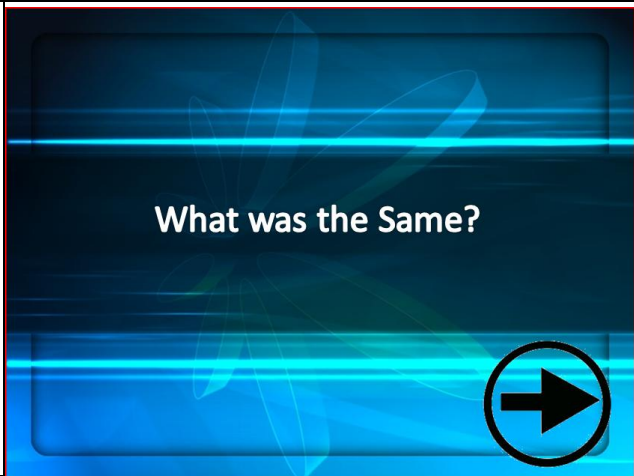|	
Take a look at these devices, out of the 3 devices which one allows you to take a digital copy of a document? Let's take a look, the camcorder at the bottom allows users to record video, the digital camera allows users to take digital photos, and the scanner at the top allow users to take a digital copy of a documents. We could change the document to a smaller or larger file based on the resolution or detail that we save.	**Which of these allows me to take a digital copy of a document?**
Take a look at this picture, out of the 4 vocabulary words below which one is best represented in this image? The correct answer is networking, networking allows multiple users to connect on a technical level.	Web Networking VIRUS SPYWARE
When typing on a keyboard have you ever noticed the bumps on certain keys? What is the reason for these bumps? The purpose of the keyboard bumps is for hand positioning, when a user is typing their pointer finger should be positioned on the keys with the bumps.	**What is the purpose of the bumps on the keyboard?** Special secret button Hand positioning Keyboard mistake (c) 2002 by wombat-online.com

This next interview task is a little different: Take a look at the following 3 slides, what is the same in all of these slides? Let me show you them again	**Review the following 3 slides what is the same in all of them?**
There are many similarities, but the one that Google wanted you to notice is that all the slides were in some kind of word processor, and all of them had an INSERT TAB. Whether a person is using, Google docs, Microsoft word, or office libre the options are allows very similar. For example the insert tab, if someone wanted to insert a picture in a word processer they would know that this can be done by finding the insert tab.	**What was the Same?**
Lets end with a discussion on how to create a database. When you create a database you must start by developing fields, for example if we created a field called last name, in this field lets discuss what information will be inputted. Through the discussion we should have came up with something that refers to that last names have text and we would need to make sure that our field is set up to except text also refered to as letters.	Field Type Length/Values[1] Collation Attributes Null Default[2] Extra VARCHAR VARCHAR TINYINT TEXT DATE SMALLINT MEDIUMINT INT BIGINT FLOAT DOUBLE DECIMAL DATETIME TIMESTAMP TIME YEAR