Self Paced Tutorial: *ST-04* **Ten Technology Skills for Learning and Teaching**

Tutorial Description

Students in the 21st Century must be creative and resourceful critical thinkers, effective problem-solvers, and life-long learners. In order for students to be successful learners that have these skills, teachers must be effective and relevant in their learning and teaching. They must be groundbreaking pioneers and visionary leaders in their schools and communities. Pioneering leaders model good practices in their ability to use today's tools and technologies productively, understand how to access and use information effectively, and commit to be active collaborators in our global society. With so much to do every day, teachers often fall behind with their desires to keep up to date with the newest technologies and practices. Lack of skills and basic understanding can often be frustrating and prevent you from using current technologies effectively. In this tutorial, you will explore some basic skills necessary for effective use of technologies in the digital age. You will examine ten basic technology skills that can help you improve how you understand and use technology, from basic hardware and productivity tools to web browsers and software applications. This self-paced tutorial will allow you to explore these skills in your own time, and at your own pace, to help increase your comfort level and move you from novice to beginner.

This online tutorial will provide you with some basic knowledge and skills necessary for effectively using technology to enhance your teaching and learning. As you complete each unit of the tutorial, you will be asked to submit an online assessment. Once your assessments for all of the units are completed, you should send a Tutorial Completion Notice. Submission of this notice will trigger an evaluation of your engagement in the activities and assessments. Following this evaluation, you will receive a Certificate of Completion for 15 hours of professional development for this tutorial training.

Unit 1	Understanding Hardware and Troubleshooting	
The title of this unit may sound daunting to the tech novice, but don't panic. It's not that hard. In this unit, you'll learn the very basics about the frameworks for technology. It's not really about the wires and the connectors, but about the idea of how different equipment is designed to work together. You will get some basic experience with buttons and switches and learn some basic questions to ask when things go wrong. This isn't about making you a tech guru, but really about helping you feel comfortable using your own hardware and technology. Even gurus have to start somewhere!		

Unit 2	Security and Safety in the Digital Age	
Safety and Security are important concerns in the digital age. As we continue to share more and more of our lives online, we need to realize that we are making this information public. Online collaboration and activities are a vital part of socializing for both children and adults. Bad things can happen unless we are careful and thoughtful about what we do and how we do it. It's really no different than how we act and speak in public, but it can easily be forgotten in real time. Things you do digitally have a tendency to linger around for a long time. With some very basic, and common sense, approaches to security and safely, we can have fruitful and productive digital lives. It isn't about being afraid; it is about being appropriate and knowing what the consequences of actions might be. In this unit, you will explore student laws for safety and security and review some tips and pointers for leading a safe and secure digital life.		

Unit 3	Productivity Tools for Work and Play	
Productivity tools allow us to do certain tasks like word processing, data analysis, and presentations with ease. Productivity tools have been around for a long time and are one of the reasons the personal computer became so popular. While most people are basically familiar with most productivity tools, they often hesitate to use different tools or new tools because they believe they would be hard to learn how to use. In this unit, you will explore some of the common types of productivity tools and gain an understanding of the kinds of tasks these tools can do. Emphasis is not on how to use the various tools, but on familiarization with the kinds of tasks productivity tools can help us do. You will also explore the similarities between commands available with productivity tools that make using more than one variety of tool easy. You will also consider the use of web based productivity tools which make collaboration between groups easy and allow for creativity.		

Unit 4	Using Web Browsers	
A web browser is a program that allows you to find, view, hear, and interact with material on the World Wide Web. Browsers allow you to both locate information from web pages you know about and find web pages that have the information you want. A browser brings those pages, and the information you want from them, to you and displays them on your computer screen. Your web browser is your first line of defense against threats to your internet security. Yet, many people do not understand what a web browser is or when they are using one. In this unit, you will explore the main		

features of a web browser and familiarize yourself with some of the popular browsers available today. As you look at the features and abilities that browsers can do, you will become aware of the differences between the various browsers available for use, and gain some insight on how to select the browser that meets your needs.

Unit 5	Searching the Internet and Evaluating Information	

The world wide web is full of information. Information is freely found everywhere online. But not all information found online is useful, or even accurate. Just because you find it online does not make it true. In order to manage the mountain of information available to you, people need to be search savvy. Being able to find accurate and up to date information that meets your needs is a considerable skill. Yet many folks use the first result they find when searching without really considering whether it is valid or current. In this unit, you will look at effective ways to use search engines to maximize the effectiveness of your search. You will explore ways that information is presented and consider the importance of authorship and bias in the presentation of information on the web. Finally, you will consider the criteria necessary to evaluate information and websites so that you can be more informed about search results and find the information you need using thoughtful and efficient means.

Unit 6	Netiquette and Digital Citizenship	

Educators, and people in general, need to know how to work, learn, and play in our increasingly global environment. As we become connected to friends and colleagues from around the world, we must make sure that our online and digital interactions are positive and appropriate. Digital Citizenship is a concept that helps us understand what technology users should know in order to use the technologies appropriately. In this unit, you will explore the criteria for digital citizenship and relate those criteria to netiquette, the rules for appropriate behavior in online environments. As you increase your use of information and communication technologies in the digital world, you will have to become more aware of the practices and behaviors which not only keep us safe, but also keep professional and personal relationships supportive and positive.

Unit 7	Using Collaboration Tools and Social Media	

One of the most beneficial side effects of the cloud based computing is the increase in the speed and efficiency with which we can collaborate. Digital tools and online or cloud based spaces enable sharing of information and files without the necessity for duplication of efforts or files. In this unit, you will look at some cloud based collaboration tools in terms of type and functionality. You will also explore the social aspect of digital collaboration and sharing of information. Social media opens the door to a wide variety of exchanges and possibilities for education. But with those possibilities comes a need for security and caution. There is a place for social media and collaboration in the classroom. But good practices for digital and social responsibility along with well defined policies are needed to insure success.

Unit 8	Getting Familiar with Learning Management Systems	

Learning management systems are everywhere in education today. Both academic and business institutions use them to organize and deliver online training courses and professional learning communities. This tutorial is being delivered through a learning management system. Educators can use learning management systems not only to take online courses and trainings to gain professional development hours, but also to design and deliver online courses to students. Content can be housed and accessed both for all online and for hybrid delivery models. There are many learning, or course, management systems available to use. Some are free and some are purchased. In this unit, you will develop an understanding of what constitutes a learning management system and the features that make it an effective tool for online and blended learning. You will explore some of the systems available for use and look at guidelines that your school or district should follow in order to implement a learning management system in your school. The decision to use a learning management system with students is a school wide decision, as is selecting the tool that is right for your situation.

Unit 9	Finding Internet Resources, Web Tools, and Applications	

There are a wide variety of tools and resources readily available for use on the web. Whatever you want to do, chances are there is a tool that can help you do it. And more than likely, there may be several different tools or software that you might choose from. Many of the web tools are free or have a basic free version available. So with the abundance of tools available, the issue becomes how to locate the tools that have the functions you need. The easiest way to find a tool for a particular function is to use your internet search skills and search for one. But how do you learn about the tools and their functions that you might not know you need, or want to use? In this unit, you will explore some strategies that you can use to find internet resources and tools. You will look at review sites and "best of" articles as well as clearinghouses and indexes of digital tools. Likewise, the world wide web contains an abundance of internet resources that you can use for teaching and learning. There are clearinghouses and networks that help you to find these resources as well. Your task in this unit is not to learn how to use digital tools or resources, but really about achieving the awareness of the vast array of resources available and learning how to find the resources that can help you enhance your teaching practice.

Unit 10	Metacognition: Learning How to Learn About Technology	

Continuing to learn about technology is a difficult task until you have built your confidence in both your skills and ability to understand how new technologies might be useful in your work. Metacognition is the ablty to understand how your learn and use that understanding to your advantage. Technology learning is often considered more difficult because it often comes with a high "fear factor" as we often are in unfamiliar territory. The best way to learn about new technologies is through trial and error, or play. In this last unit, you will explore some of the coming trends in new technologies and get an idea of how long before they become ubiquitous in our education community. You will look at a variety of ways in which you can continue to learn about new technologies for free. And most importantly, you will explore steps to become more

comfortable with trying new programs and applications for the fun of it. You never know what will be of use to you until you see what it can do.

Self Paced Tutorial Goals

After completing this tutorial, you will be able to:

- understand the basic components of a computer.
- identify some basic networking terms and concepts.
- determine how to troubleshoot some basic hardware issues that commonly occur.
- understand the laws that govern internet safety of children.
- identify some resources used to promote safety and security.
- understand some basic ways to secure your data and information.
- understand how productivity tools can help us use technology for both professional and personal purposes.
- identify the various kinds of productivity tools that are available for personal and professional use.
- understand how web based productivity tools can help us collaborate and communicate more efficiently.
- understand what web browsers do and why they are important.
- differentiate between and understand how to use the major features of web browsers.
- identify similarities and differences among various web browsers.
- identify and use effective search terms for efficient results.
- recognize that information on the internet comes from a variety of sources, not all reputable.
- use evaluation criteria to evaluate web pages and information.
- understand the characteristics of good digital citizenship.
- identify some of the core rules of netiquette.
- understand the importance of proper social interactions on the internet.
- understand the various types of tools available for productivity and collaboration.
- appreciate the controversies surrounding social media use as well as the academic enrichments that its use could bring.
- identify how to develop effective media guidelines for use in schools.
- define a learning management system and differentiate it from other kinds of software.
- identify some characteristics that all learning management systems have in common.
- understand how a learning management system can be used to enhance and extend your content and classroom environment.
- appreciate the wide variety of web tools and internet resources that are available for teaching and learning.
- identify some key sites and locations for finding internet tools and resources, or applications.
- search and locate web tools, resources, or applications to meet specific needs in your teaching practice.
- identify a variety of sources for learning more about how to use technology.
- understand the importance of play and trial and error in building your tech skills and confidence regarding using technology.
- understand a process you can use to help you continue to learn about technology and how to use it.

Self Paced Tutorial Expectations

This tutorial is divided into 10 units, surrounding general content themes. Each unit includes readings and activities that will build knowledge. Each unit ends with a short quiz which will help to assess your understanding at the end of the unit. The results will serve as a record of your participation and professional growth in these content areas.

The estimated time for the completion of each unit is approximately ninety (90) minutes. Some may finish more quickly, while other may require a bit more time to complete. The content of each unit was compiled and developed to have a ninety (90) minute average completion time. Successful completion of the tutorial will earn you fifteen (15) hours of professional development.

The tutorial is pass/fail, but you are expected to read all the materials and successfully complete the unit quizzes in order to earn a *Certificate of Completion*.

Access to this tutorial and the materials provided will remain available to you after you have completed the assignments and earned your certificate of completion. You may return as often as you like to review and access the resources provided.

Participation and progress will be reviewed and assessed after the Notice of Completion is submitted. After submission of each unit assessment quiz, the tutorial Gradebook will reflect the grade for the submitted quiz.

In order to receive a *Certificate of Completion* at the end of the tutorial, you must earn a passing grade of 60% or more on the tutorial quizzes, earning at least 60 out of 100 points. Each ten point quiz contains five questions, each worth two points.