Internet & Computing Core/Tech Tools Competency Grid						
TI-0550 Competency	Quarter Covered	Teacher	**How Task is Accomplished by Student**	Competency A	IC3 Unit	ExploringCS Unit
General Knowledge						
Students define and identify five methods computers assist people, 5 ways computers assist organizations			Students define and identify five methods computers assist people, 5 ways computers assist organizations		LO	1,3
Students identify ways computers are used in non-technical fields, i.e., agriculture			Students identify ways computers are used in non-technical fields, i.e., agriculture		LO	1,3
Students reflect upon how students/individuals use a computer in their personal life			Students reflect upon how students/individuals use a computer in their personal life		LO	1,3
Students comprehend and practice the 10 Rules of Computer Ethics			Students comprehend and practice the 10 Rules of Computer Ethics	Certiport IC3 C	CF	1,3
Students learn to use the Internet for research, and properly cite research for appropriate sources.			Students learn to use the Internet for research, and properly cite research for appropriate sources.	Certiport IC3 C	LO	1,3
Students discuss Information Security and the Importance of Being Aware on the Internet			Students discuss Information Security and the Importance of Being Aware on the Internet	Certiport IC3 C	LO	1,3
Students are able to identify Cyber-Crimes, what they are, punishments, etc. i.e, identity theft			Students are able to identify Cyber-Crimes, what they are, punishments, etc. i.e, identity theft	Certiport IC3 C	LO	1,3
Students discuss and identify methods of keeping their school and personal computer safe from threats			Students discuss and identify methods of keeping their school and personal computer safe from threats	Certiport IC3 C	LO	1,3
Students learn, discuss, and understand the significant threats posed by hackers, viruses, spyware, fraud, scams, etc.			Students learn, discuss, and understand the significant threats posed by hackers, viruses, spyware, fraud, scams, etc.	Certiport IC3 C	LO	1,3
Students identify 10 ways to protect themselves on-line -Personal On-Line Safety			Students identify 10 ways to protect themselves on-line -Personal On-Line Safety	Certiport IC3 C	LO,CF	1,3
Information Support Pathway						
Students will be able to define a computer.			Students will be able to define a computer.	Certiport IC3 C	CF	1,3
Students will be able to define past and modern operating systems.			Students will be able to define past and modern operating systems.	Certiport IC3 C	CF	1,3
Students will be able to define all major computer system components.			Students will be able to define all major computer system components.	Certiport IC3 C	CF	1,3
Students will be able to explain the difference between different types of computers, i.e., personal vs. server			Students will be able to explain the difference between different types of computers, i.e., personal vs. server	Certiport IC3 C	CF	1,3
Students will understand how to convert binary, bits and bytes, etc. and understand why computers utilize these systems		Torek	Students will understand how to convert binary, bits and bytes, etc. and understand why computers utilize these systems	Data Structures		2
Students will be able to define all modern input and output devices			Students will be able to define all modern input and output devices	Certiport IC3 C	CF	1
Students will understand how a CPU functions and major differences in types of CPUs (i.e., server, desktop, laptop,)			Students will understand how a CPU functions and major differences in types of CPUs (i.e., server, desktop, laptop,)	Certiport IC3 C	CF	1
Students will explain the difference between RAM and ROM Memory and how they interact			Students will explain the difference between RAM and ROM Memory and how they interact	Certiport IC3 C	CF	1,2,4
Students will define computer mass storage and the unique properties of different types			Students will define computer mass storage and the unique properties of different types	Certiport IC3 C	CF	1,2

Objective			Objective	Resource	Standard	Unit
Students will understand the decision-making and buying process for computer hardware, software, and networks for different types and size organizations			Students will understand the decision-making and buying process for computer hardware, software, and networks for different types and size organizations		LO	1
Students will understand the importance of purchasing and supporting software for the continued success of an organization			Students will understand the importance of purchasing and supporting software for the continued success of an organization		LO	1
Network Support Pathway						
Students will gain a basic understanding of computer networking			Students will gain a basic understanding of computer networking		LO	
Students will be able to identify what networks are used for			Students will be able to identify what networks are used for		LO	
Students will gain a historical perspective on the development of networks			Students will gain a historical perspective on the development of networks		LO	
Students will gain a historical perspective on the development of the Internet			Students will gain a historical perspective on the development of the Internet		LO	
Students will understand the basics of Computer Networking			Students will understand the basics of Computer Networking		LO	
Students will understand the basics of Wireless Networking			Students will understand the basics of Wireless Networking		LO	
Students will understand the basics of Internet Networking			Students will understand the basics of Internet Networking	Certiport IC3 C	LO	
Students will learn about the underlying foundation of the internet (i.e., IP address, domain names, servers, etc.)			Students will learn about the underlying foundation of the internet (i.e., IP address, domain names, servers, etc.)	Certiport IC3 C	LO	
Students will be exposed to Internet and its benefits and possible weaknesses			Students will be exposed to Internet and its benefits and possible weaknesses	Certiport IC3 C	LO	1,3
Web and Digital Communication Pathway						
Students will be exposed and learn the basics of design including layouts, color schemes, and audience			Students will be exposed and learn the basics of design including layouts, color schemes, and audience	Web Unit		3
Students will be able to differentiate between multiple different graphic file formats for pictures and artwork			Students will be able to differentiate between multiple different graphic file formats for pictures and artwork	Web Unit		3
Students will be able to explain and demonstrate the difference between vector and raster art			Students will be able to explain and demonstrate the difference between vector and raster art	Web Unit		3
Students will create a project based solely using raster art			Students will create a project based solely using raster art	Web Unit		3
Students will create a project based solely using vector art			Students will create a project based solely using vector art	Web Unit		3
Students will create a project that utilized both raster and vector art			Students will create a project that utilized both raster and vector art	Web Unit		3
Students will learn to create a basic HTML page using Notepad			Students will learn to create a basic HTML page using Notepad	Web Unit		3
Students will understand basic HTML and CSS			Students will understand basic HTML and CSS	Web Unit		3
Students will create and design a simple personal/professional web page			Students will create and design a simple personal/professional web page	Web Unit		3

Objective			Objective	Code		Ref
Students will be exposed to Digital Photography			Students will be exposed to Digital Photography	Web Unit		
Students will take a field trip and capture photos to be edited			Students will take a field trip and capture photos to be edited	Web Unit		
Students will be exposed to Video Editing			Students will be exposed to Video Editing	TT		
Students will shoot video and make a 30 second commercial about themselves			Students will shoot video and make a 30 second commercial about themselves	TT		
Students will learn about the distribution of all forms of digital art			Students will learn about the distribution of all forms of digital art	LO, Web		
Students will learn about the importance of audio in media communications			Students will learn about the importance of audio in media communications	LO, Web		
Students will use Google Sketchup to learn simple 3D modeling and animation			Students will use Google Sketchup to learn simple 3D modeling and animation			
Students will discuss the importance of e-commerce to the Internet and society; and why designers are so important to the e-commerce business			Students will discuss the importance of e-commerce to the Internet and society; and why designers are so important to the e-commerce business	LO		1,3
Students will be able to identify different types and styles of e-commerce systems			Students will be able to identify different types and styles of e-commerce systems	LO		1,3
Students will be able to define all the common characteristics of an e-commerce system (i.e., shopping cart, check out, etc.)			Students will be able to define all the common characteristics of an e-commerce system (i.e., shopping cart, check out, etc.)	LO		1,3
Students will reflect on how computers are changing interactive media today, and what is possible in the future.			Students will reflect on how computers are changing interactive media today, and what is possible in the future.	LO		1,3
Programming Development Pathway						
Students will learn the term programming and how it relates to computers			Students will learn the term programming and how it relates to computers	PR		4
Students will identify the history of computer programming and how it differs from yesterday (i.e., punch cards/assembler) to modern programming languages			Students will identify the history of computer programming and how it differs from yesterday (i.e., punch cards/assembler) to modern programming languages	PR		4
Students will learn the names and functions of 5 major programming languages used today			Students will learn the names and functions of 5 major programming languages used today	PR		4
Students will be introduced to programming in pseudo-code			Students will be introduced to programming in pseudo-code	PR		4
Students will use an open-source programming language such as Alice or Scratch to create a program			Students will use an open-source programming language such as Alice or Scratch to create a program	PR		4
Students will use Alice or Scratch to write an advanced program or extend the features of their first program			Students will use Alice or Scratch to write an advanced program or extend the features of their first program	PR		4
Students will learn what a database is, and its importance in the IT world			Students will learn what a database is, and its importance in the IT world	Data		5
Students will create a Flat Database in MS Excel or Open-Office			Students will create a Flat Database in MS Excel or Open-Office	TT		5
Students will learn about different methods software and programming are being delivered via the web including cloud computing			Students will learn about different methods software and programming are being delivered via the web including cloud computing	LO		1

Students will be exposed to programming and how it relates to e-commerce			Students will be exposed to programming and how it relates to e-commerce	PR		1
Students will reflect upon programming in order to dream up programs they would like to see created or write themselves.			Students will reflect upon programming in order to dream up programs they would like to see created or write themselves.	PR		4
Intellectual Property, Entrepreneurship and Current Issues in IT						
Students will learn about the physical and mental health benefits and dangers with overuse of computers, Internet, and gaming			Students will learn about the physical and mental health benefits and dangers with overuse of computers, Internet, and gaming	LO		1
Students will learn about and discuss the positive and negative aspects of social networking			Students will learn about and discuss the positive and negative aspects of social networking	LO		1
Students will reflect upon how computers impact free speech in the positive and negative			Students will reflect upon how computers impact free speech in the positive and negative	LO		1
Students will learn about entrepreneurship and research a famous IT person (i.e., Bill Gates)			Students will learn about entrepreneurship and research a famous IT person (i.e., Bill Gates)	x		1
Students will present their entrepreneur using technologies learned throughout the course			Students will present their entrepreneur using technologies learned throughout the course	x		1
Students will develop their own small company and write a two page mini-business plan			Students will develop their own small company and write a two page mini-business plan	x		1
Students will discuss the pros and cons of working for yourself or working for someone else			Students will discuss the pros and cons of working for yourself or working for someone else	x		1
Students will learn what patents protect and how long they last			Students will learn what patents protect and how long they last	LO		1
Students will learn what trademarks/service marks protect and how long they last			Students will learn what trademarks/service marks protect and how long they last	LO		1
Students will learn what copyright protects and how long they last			Students will learn what copyright protects and how long they last	LO		1
Students will explore the globalization of the IT business and discuss how it will affect them now and in the future – both positive and negative			Students will explore the globalization of the IT business and discuss how it will affect them now and in the future – both positive and negative	CF		1