Indiana CTE

Introduction to Computer Science

Students create an understanding of computer science, in general, and learn how it impacts their everyday lives.	1 Create a definition of computer science ICS-1.1
	2 Define computational thinking ICS-1.2
	3 Examine the history of computers and computer science ICS-1.3
	4 Investigate trends in computer science ICS-1.4
	5 Summarize ethical issues within computer science ICS-1.5
Students connect the process of developing a computer application with the skills needed during the development process to have better understanding of what it takes to build an computer application.	1 Identify the careers in computer science CS-2.1
	2 Analyze conditional decision making and iteration ICS-2.2
	3 Use loops and object oriented concepts ICS-2.3
	4 Formulate algorithms using programming structures ICS-2.4
	5 Assess a program by testing and verifying accuracy ICS-2.5
	6 Construct a user interface for a program through coding ICS-2.6
	7 Evaluate the use of graphics within a program ICS-2.7
	8 Examine the development of websites, mobile applications, and games ICS-2.8
Students critique the types of data and how it is created, stored, and used by computers	1 Identify types of data ICS- ICS-3.1
	2 Differentiate between structures of data ICS-3.2
	3 Use a database in the creation of a program ICS-3.3
Students analyze computer, devices, and other technologies to build an understanding of an appropriately	1 Recall the features of computers ICS-4.1
	2 Identify mobile devices and how to use them appropriately ICS-4.2
	Recognize the impact of the Internet on society ICS-4.3

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	4	**Investigate the use of artificial intelligence by individuals and society** ICS-4.4
	5	**Examine the development of robotics** ICS-4.6
	6	**Examine computer security issues and the field of cryptography** ICS-4..7
Students apply concepts of collaboration to complete various tasks. Standards	1	**Design a solution to a problem by working in a team** ICS-5.1
	2	**Compare tools that can be used to collaborate** ICS-5.2