WAYNESBORO AREA SCHOOL DISTRICT CURRICULUM

COURSE NAME: Computer Applications 8

UNIT: Check Writing	**NO. OF DAYS: 4**

KEY LEARNING(S): Budgeting, Personal Finance, Money Management

UNIT ESSENTIAL QUESTIONS: How do I write a check and keep track of my money in a bank?

COMPETENCY: Students will be able to complete a deposit slip
Write a check
Record a transaction in a check register
Maintain a correct balance in the check register
Reconcile and account

STANDARD	CONCEPTS Eligible Content & Skills	# OF DAYS	ESSENTIAL QUESTIONS A = Acquisition ET = Extended Thinking	RESOURCES/ MATERIALS	TIER 2 VOCABULARY	TIER 3 VOCABULARY
11.9.B Explain the responsibilities associated with managing personal finances	Responsibilities and consequences are associated with managing personal finances	4	What are the tasks required to maintain a checking account? How does an individual reconcile a checking account with his/her bank? What is the relationship between an individual, a checking account, and a bank?	Computer Projector Vision Software Lesson Handout Student files Paper Printer	• Check number • Written and numerical amounts • Memo line • Signature line • Routing number • Account number	

COURSE NAME: Computer Applications 8

UNIT: Programming Karel	**NO. OF DAYS: 20**

KEY LEARNING(S): Learning to program a 'dog' to function in a computer world

UNIT ESSENTIAL QUESTIONS: What is programming and what is the connection between humans and computers?

COMPETENCY: Students will be able to explain the commands Karel can be given
will learn about Karel's 'World' and the ways that Karel can interact with it.
teach new words or commands through the use of functions

STANDARD	CONCEPTS Eligible Content & Skills	# OF DAYS	ESSENTIAL QUESTIONS A = Acquisition ET = Extended Thinking	RESOURCES/ MATERIALS	TIER 2 VOCABULARY	TIER 3 VOCABULARY
15.4.12.H Use programming language to develop logical thinking and problem solving skills 15.4.12.I Compare and contrast programming language 15.4.12.J Create a complex computer program to solve a problem	• Understand what functions are for and how using them improves programs • Explain the importance of writing readable code, and analyze and compare readability of different programs • Break a large problem down into smaller pieces • Write methods to solve each smaller problem • Solve a complicated problem using Top Down Design • Identify good and poor decomposition • Explain preconditions and post conditions of a function • Create clear and readable comments in code that help the reader	21	• What is programming? • What is a computer? What are they used for? How are humans like a computer? • What is the difference between a computer and computing? • How are instructions used to execute simple tasks?	Computer Projector Vision Software Lesson Handout Student files Paper Printer	• World • Command • Curly Bracket • Decompose • Indentation • Decomposition • Precondition • Comment • Postcondition • Loop • Parentheses • Condition • Syntax	• Camel Case • Karel • Call a function • Define a function • Function Body • Start Function • Top Down Design • SuperKarel • For Loop • Control Structure • If Statement • If Else Statement • While Loop • Fencepost Problem

	understand the code • Explain the purpose • Create for loops to repeat code a fixed number of times • Explain when a for loop would be a useful tool • Utilize for loops to write program that would be difficult/impossible without loops • Use conditions to gather information about Karel's word • Create if statements to execute code if a certain condition is true • Explain the purpose of an If/Else statement • Create If/Else statements to solve new types of problems • Identify when an If/Else statement is appropriate to be used • Explain the purpose of a while loop • Create while loops to repeat					

	code while a condition is true • Utilize while loops to solve new types of problems • Test solutions on different worlds • Combine control structures to solve complicated problems • Choose the proper control structure for a given problem					