

WEST JEFFERSON HILLS SCHOOL DISTRICT
CURRICULUM STRANDS – VISUAL BASIC PROGRAMMING
GRADE (9-12)

1. History of Computers and Computer Environment.
2. Introduce Visual Basic.
3. Understand Variables and Constants.
4. Learn How to Control Program Flow with Decision Structures.
5. Learn How to Control Program Flow with Looping Structures.
6. Understand Procedures.
7. Use Arrays
8. Understand How to Sequential Access Files

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- I. Learn the History of Computers**
 - a. Get an overview of mechanical and electro-mechanical devices.
 - b. Learn about first, second, third and fourth generation of computers
 - c. Understand computer memory storage and how it works.
 - d. Get an overview of the different Numbering Systems
 - e. Learn about Object-Oriented Programming
- II. Learn the environment of Visual Basic IDE**
 - a. Understand the Visual Basic IDE environment.
 - b. Learn about creating, saving, and editing projects in the IDE
 - c. Learn how to create Executable Files
- III. Understand how to use variables and constants.**
 - a. Learn how to use and assign variables.
 - b. Learn how to use constants
 - c. Understand how to use and declare Data Types
 - d. Understand Syntax Errors
 - e. Understand Automatic Type Conversion
- IV. Understand how to use decision structures**
 - a. Learn about the different decision structures
 - b. Learn how to generate Random Numbers
 - c. Understand the scope of a variable
 - d. Use Logical Operator in visual basic program
 - e. Use Algorithms to create visual basic programs
 - f. Understand how to use counters
- V. Use Looping Structures to control the flow of a program**
 - a. Understand the different loops in visual basic
 - b. How to use accumulators in a loop
 - c. Understand how to use Strings in a program
 - d. Learn about Character Data Storage
- VI. Learn how to use Procedures in a program**
 - a. Learn how to create a Sub Procedure
 - b. Learn about Parameters of a Procedures
 - c. Understand Static Variable
 - d. How to use Function Procedures
- VII. Understand how to use Arrays in a program**
 - a. Use variable Arrays
 - b. Understand about Array Parameters
 - c. How to search an Array
 - d. Use Dynamic Arrays in a program
 - e. How to create a Two-Dimensional Arrays

VIII. Understand Sequential Access Files

- a. How to create and edit a File
- b. Be able to read Records
- c. Learn how to delete and rename Files
- d. Learn how to update and delete Records