

Fluency in Computer Technology

LAP 15 – Program Development and Programming Languages



Name _____

Period _____

Date Started _____

Date Completed _____

DoDEA Standards

- ◆ PT1i Use mathematical ideas and techniques, algorithmic thinking, and programming.
- ◆ PT1o Understand different types and levels of programming languages.

Objectives

- ◆ Explain the six steps in the program development life cycle.
- ◆ Describe top-down program design.
- ◆ Explain structured program design and the three basic control structures.
- ◆ Explain the differences among the categories of programming languages.
- ◆ Describe the object-oriented approach to program development.
- ◆ Identify programming languages commonly used today.
- ◆ Identify the uses of application generators, macros, and RAD tools.
- ◆ Describe various Web page development tools, including HTML, DHTML, XML, and WML.
- ◆ Identify uses of multimedia authorizing packages.

Resource Discovering Computers 2002 Chapter 15: Program Development & Programming Languages

Time Frame 5 hours (suggested)

Introduction

In Chapter 15 you will discuss each step in the program development life cycle and the tools used to make this process efficient. You will also explain various programming languages and program development tools used to write and develop computer program. You will also learn about a variety of Web development and multimedia development tools.

Assignments

Where appropriate and possible, written answers must be in complete sentences and keyed. Turn in completed activities as directed by instructor.

- _____ Read *Discovering Computers* (textbook) pages 15.1 – 15.43.
- _____ Complete “Issue: Calling All High School Students” on page 15.5. Respond to all the questions.
- _____ Complete “Issue: What’s The Secret?” on page 15.20. Respond to all the questions.
- _____ E-Revolution, page 15.43 “E-Career Applied”. Complete either number 1 or number 2.
- _____ Learn It Online, page 15.47. Complete numbers: 1 “Web Guide”, 2 “Scavenger Hunt”, 3 “Who Wants To Be A Computer Genius?”, 5 “Career Corner” and 6 “Search Sleuth”.
- _____ Checkpoint, pages 15.48 – 15.49. Complete: “Label The Figure”, “Matching”, “Multiple Choice”, and “Short Answer”.
- _____ In The Lab, page 15.50. Complete numbers: 1 “Searching For Executable Files”, 2 “Movie Box Office Simulation”, 3 “Adjusting Keyboard Speed” and 4 “Loan Payment Calculator”.
- _____ Web Work, page 15.51. Complete numbers: 1 “Java Victory”, 2 “Choosing A Programming Language” (print out and answer all 12 questions) and 5 “In The News” (respond to all the questions).

_____ Complete the Self Assessment below.

_____ Take Chapter 15 Test.

Self Assessment - "I/I can . . ."

- _____ explain the six steps in the program development life cycle.
- _____ describe top-down program design.
- _____ explain structured program design and the three basic control structures.
- _____ explain the differences among the categories of programming languages.
- _____ describe the object-oriented approach to program development.
- _____ identify programming languages commonly used today.
- _____ identify the uses of application generators, macros, and RAD tools.
- _____ describe various Web page development tools, including HTML, DHTML, XML, and WML.
- _____ identify uses of multimedia authorizing packages.