

Programming Basics

Academic Representative



Technology Education Concepts

www.TECedu.com | 800-338-2238



Description

DEPCO's Programming Basics curriculum introduces students to the Kano Computer Kit which features the Raspberry Pi 3, a lightweight, powerful brain. Students use a uniquely designed operating system, Kano OS, as well as the Linux command line to complete programming techniques using the Scratch language and textual programming techniques using the Python language.

Skills

- Create an original program using either a visual or textual programming language
- Complete the five steps of the program development cycle
- Construct an original graphical user interface
- Demonstrate the use of comparison and logical operators
- Correct errors using the Python language

Knowledge

- Discuss the use of arguments and parameters
- Explain the concept of modularization
- Explain the fetch-decode-execute cycle
- Discuss types of computer components
- Discuss top-down design

Activities

- Activity 1 - Introduction
- Activity 2 - Python Basics
- Activity 3 - Functions
- Activity 4 - Decision Statements
- Activity 5 - Loops
- Activity 6 - Sequences
- Activity 7 - Object-Oriented Programming
- Activity 8 - GUI Programming
- Activity 9 - The Internet and the World Wide Web
- Activity 10 - Post-Test and Wrap-Up
- Activity 11 - Bonus Activities
- Activity 12 - Challenge
- Activity 13 - Open-Ended Challenge
- Activity 14 - Careers
- Activity 15 - Internet

Standards

Technology, Math, Reading, Problem Solving

Module Includes:

Student Workbook, Instructor's Manual, Installation CD, Kano Computer Kit, Headphones (2)

Computer is required and sold separately.

Requirements

Computer required and sold separately.