

Investigating Computers (30-assignment)



This is an integrated instructional module designed specifically to operate within a Modular Program environment. It is ideal for use with our Scantek Technology or IT2020 Information Technology programs. It includes a 10-assignment exploratory curriculum and a further 20-assignment in-depth curriculum. The exploratory curriculum and the in-depth curriculum are each split into two parts. Each part includes a pre-test and post test. The module includes software and curriculum materials sufficient to provide a complete learning experience.

The curriculum incorporates continuous assessment through questions. When used in conjunction with a ClassAct networked management system, this provides instant feedback of student performance. The assessments begin with a comprehensive pre-test. This quiz includes questions for each subsequent assignment, together with questions that will specifically test math and reading ability.

Every assignment starts with a series of questions designed to track inventory. These ensure that any missing items are located before they are needed.

Each assignment is divided into a series of research and investigation tasks. These tasks introduce students to computer systems technology, and based upon a range of on-screen applications. Assessment questions are incorporated into each task.

Exploratory Phase topics:

- Operating systems
- Graphical and text-based user interfaces
- GUI desktop
- Control Panel
- File and folder structure
- File names and extensions
- Operating system installation
- Application software installation
- Pre- and post-installation activities
- User accounts
- Windows startup and shutdown
- Operating system modes
- Windows architecture
- The registry
- Hard disk low- and high-level formatting
- File systems and file management
- User requirements for software
- Choosing software

Exploratory Phase activities:

- Identifying and comparing operating systems.
- Using text and graphical user interfaces.
- Exploring Windows GUI and the role of the control panel.
- Exploring files, folders, and file name extensions.
- Installing an operating system.
- Installing application software.
- Performing pre- and post-installation activities.
- Recognizing, creating, changing, and deleting user accounts.
- Starting up and shutting down the computer.
- Investigating how Windows works.
- Exploring hard disk formats and file systems.
- Analyzing requirements and selecting software.

Advanced Specialization Phase topics:

- PC components.
- PC peripherals.
- The Windows family of operating systems.
- Windows XP installation.
- Windows upgrades and maintenance.
- Ports and buses.
- Multimedia components and software.
- Hard drives and hard drive performance.
- PC power supplies.
- Portable computers, notebooks, and PDAs.
- Hardware and software problem diagnosis.
- System performance and troubleshooting.
- Networking and network technologies.
- PCs and Internet connectivity.

Advanced Specialization Phase activities:

- Examining the features and characteristics of CPUs, BIOS, and CMOS.
- Investigating RAM types; how to choose them and install them.
- Installing Windows XP.
- Examining PCI, Firewire, USB, and PC card buses.
- Investigating the methods and implications of upgrading Windows 9x/Me/2000/NT/XP.
- Exploring portable computers – desktop replacements, notebooks, and PDAs.
- Maintaining portable computers and replacing RAM and hard drives.
- Installing, configuring, and using PCI sound cards and network adaptors.
- Working with Windows 9x/Me/2000/NT/XP.
- Examining IDE and SCSI storage technologies and interfaces.
- Testing power supply to AT and ATX motherboards
- Exploring hardware diagnostic and troubleshooting methodologies.
- Connecting to the Internet and using Internet tools.
- Examining Network architecture and topologies.
- Investigating network cabling, connectors and wireless communications.

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Each assignment is designed around a list of performance objectives. These lists include academic, technical, and occupational objectives. The assignments are written in such a way as to enable a student to attain the performance objectives, with the assessment questions linked to these in order to provide a measure of true competency.

The performance objectives are used by the ClassAct management system to generate a comprehensive portfolio of student competency reports. Default reports that are supplied with this module include:

- Entry report
- Technical/Occupational Exit report
- Basic Skills report based upon the federal SCAN's report.

The items supplied with this instructional module include:

- 10-assignment On-Screen Student Assignment Guide CD
- 10-assignment Student Workbook
- 10-assignment Instructor's Guide
- 20-assignment On-Screen Student Assignment Guide CD
- 20-assignment Instructor's Guide
- Interactive theory software
- Textbook

Additional items required:
Computer

Module Facts

For Technology Program, order as:
ST670/30 Investigating Computers

For IT Program, order as:
ISS3C Investigating Computers

	No.	Average time
Assignments	10	45 minutes
	20	90 minutes
Extension Activities	2	45 minutes
Total		39 hours



LJ Technical Systems
Web site: www.ljgroup.com