

Investigating the Internet (40-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 30-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 tasks. Hands-on tasks introduce students to the Internet, and are accompanied by research tasks based upon illustrated textbooks and on-screen applications. Assessment questions are incorporated into each task.

Exploratory Phase Topics:

- Network connectivity devices
- The structure of the Internet
- Development
- Control of the Internet
- E-commerce concepts
- Internet business models
- TCP/IP
- Building small networks
- Intranets
- Internet connectivity devices
- LANs and WANs
- Network operating systems
- Network protocols
- Network cabling
- Domain Name System
- Search engines
- Network topologies
- Web browsers

Exploratory Phase Activities:

- Identifying a range of network connectivity devices.
- Identifying network topologies.
- Examining the components and organizations that form the Internet.
- Investigating the flow of information across the Internet.
- Tracing the evolution of the Internet.
- Investigating the organizations that maintain, monitor and control the Internet.
- Exploring E-commerce and the systems that enable transactions to take place.
- Investigating Internet business models including B2B and B2C.
- Exploring Internet services.
- Investigating TCP/IP and packet switching.

Advanced Specialization Phase topics:

- Internet infrastructure
- Online services
- Web development
- Search engines
- E-commerce
- Cryptography and authentication
- Internet marketing
- Internet multimedia and web site creation
- Global business
- Internet connectivity
- Networking and internetworking protocols
- OSI model
- DNS
- Caching
- Computer viruses
- Network security
- Copyright, trademarks and patents
- Programming languages and databases
- Remote access
- Connectivity devices
- Encryption
- Building multimedia web sites

Advanced Specialization Phase activities:

- Tracing the development of internetworking.
- Relating hardware devices to the OSI model.
- Identifying hardware connectivity devices.
- Examining functions of access connectivity devices.
- Examining functions of software connectivity devices.
- Analyzing components of the TCP/IP protocol suite.
- Identifying remote access protocols.
- Examining the operation of DNS.
- Identifying Internet infrastructure components.
- Following steps to enable Internet connectivity.
- Investigating application service providers.
- Examining features of Internet clients.
- Following procedures to configure Internet clients.
- Using Internet clients.
- Monitoring web site performance.
- Investigating caching methods.
- Comparing programming languages.
- Examining the use of databases.

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Advanced Specialization Phase activities (continued):

- Designing web sites.
- Creating documents with HTML.
- Using tables, forms and meta tags.
- Adding interactivity with scripts.
- Adding animation.
- Using DHTML.
- Adding CSS.
- Examining the future of HTML.
- Testing your web site.
- Exploring search engines.
- Investigating data security methods.
- Identifying virus protection practices.

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
- 30-assignment On-Screen Student Assignment Guide CD
- 30-assignment Student Workbook
- 30-assignment Instructor's Guide
- Reference Guide
- Simulation Software
- Theory Support Software
- i-Net+ Theory Support Software

Additional items required:

- Computer
- Internet Access

Module Facts

For Technology Program, order as:
ST690/40 Investigating the Internet

For IT Program, order as:
NS6C Investigating the Internet

	No.	Average time
Assignments	40	45 minutes
Extension Activities	4	45 minutes
Total		33 hours



LJ Technical Systems
Web site: www.ljgroup.com