Navigation and GPS (10-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 program. The module includes a 10-assignment exploratory curriculum that is split into two parts. Each part includes a pre-test and post test. The module includes hardware, 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 form the core of the student work. Where appropriate, these are accompanied by research tasks based upon illustrated textbooks and software applications. Assessment questions are incorporated into each task.

Typical 10-assignment topic areas include:
- Four figure grid references
- Map scale
- Latitude and longitude
- Using a compass for navigation
- Four cardinal compass directions
- Navigation systems, past and present
- GPS readings of degrees, minutes and seconds
- Planning a route using latitude and longitude
- Operation of an atlas software program

Typical 10-assignment activities include:
- Follow grid references to locate treasure on a computer.
- Use a scale to work out distances between sites from a map.
- Global Positioning Systems.
- Use a GPS receiver to obtain a position reading.
- Identify a position on a computerized atlas from a GPS reading.
- Discover latitude and longitude lines.
- Use a computerized atlas to find latitude and longitude co-ordinates.
- Find the four cardinal compass directions using a magnetic compass.
- Present one map distance scale in other forms.
- Find distances between places using a computerized atlas.
- Examine the different types of maps used for different purposes.
- Explore how computer map technology shows the Earth's surface.
- Discover how maps represent the three dimensional shape of the Earth's surface.
- Use contour lines to create a side view of land shown on a map.
- Explore the relationship between forms of travel and changes in GPS readings.
- Plan an efficient flight route across the USA using latitude and longitude co-ordinates.

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 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 Assignment Guide
- 10-assignment Student Workbook
- 10-assignment Instructor's Guide
- Computer Aided Instruction software
- Book 'Explorer'
- GPS receiver
- Trip planning software
- Orienteering compass
- Microsoft Encarta software
- Interactive atlas reference sheet
- Set of compass cards
- Belle Valley map sheets

Additional items required:
- Computer

Module Facts

For Technology Program, order as:
ST370/10 Navigation and GPS

	No.	Average time
Assignments	10	45 minutes
Extension Activities	2	45 minutes
Total		9 hours

LJ Technical Systems
Web site: www.ljgroup.com