

Weather Monitoring (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 that are 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:

- Characteristics of the atmosphere
- Transitional states of water
- Localized weather data
- Rain, temperature, wind direction and wind speed weather sensors
- Satellites
- Data logging and display of weather information
- Characteristics of various cloud types
- Download and display of satellite images
- National weather conditions
- Formation of storms
- The climate

Typical 10-assignment activities include:

- Define characteristics of the atmosphere.
- Record readings from weather sensors.
- Investigate the components and links in the water cycle.
- Identify the transitional states of water.
- Identify methods for gathering weather data.
- Use a computer to display localized weather data.
- Describe the use of satellites to monitor the weather.
- Track satellites. Examine the main features of common cloud types.
- Create a record of cloud types.
- Describe how thunder and lightning are formed.
- Examine the basic properties of electricity.
- Define the meteorological term 'precipitation'.
- Examine a sample computer log of rainfall.
- Examine infrared satellite images.
- Identify temperature regions from satellite images.
- Distinguish between weather and climate.
- Identify elements that have an effect upon the climate.
- Define characteristics of a hurricane.
- Forecast the approach of a hurricane and issue a warning.

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 Assignment Guide
- 10-assignment Student Workbook
- 10-assignment Instructor Guide
- Computer Aided Instruction software
- Satellite images accessed from the Internet
- Text book '*Eyewitness Guides - Weather*'
- Davis Instruments Vantage Pro wireless weather monitor system

Additional items required:

- Computer with Internet access and standard web browser
- Fixtures for fastening the weather monitor sensor outside. Must extend above edge of roof and be within 150 feet (46 metres) of the wireless weather monitor receiver console located inside the building.

Module Facts

For Technology Program, order as: ST110/10 Weather Monitoring

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



LJ Technical Systems
 Web site: www.ljgroup.com