

Chapter 5—Patterns of Organization

Expansion Strategies

Sentence Definition	→	Overview A modem is an electronic device used to connect computers to communication networks. The term “modem” is a short form for
Background of term	→	“modulator-demodulator.” A modulator converts a digital signal to an
Basic principle	→	analog signal; a demodulator converts an analog signal to a digital form that is readable by computers or digital switching equipment. The modem combines both modulation and demodulation functions in a single device.
Types of Modems	→	Types of Modems The basic principles of modem operations appear in other types of devices, even though they are not commonly thought as modems. The major categories of modems are <ul style="list-style-type: none">• Modems — connecting computers and analog telephone lines• Fax modems — specializing in facsimile transmission• Personal Computer Memory Card (PCMCIA) modems — connecting laptop computers to telephone lines, wireless Local Area Networks (LANs), and cellular telephone networks• Cable modems — connecting computers to cable television lines, supporting a much greater data rate than ordinary telephone lines• Set-top boxes — providing functions related to cable television viewing and programming, including an embedded modem that connects to a home computer to use the television as a computer display
Negation: explaining what a modem is <i>not</i>	→	Modems are sometimes confused with Digital-to-Analog Converters (DAC) and Analog-to-Digital Converters (ADC). These devices are single chips that perform the function for which they are named. They are components of common modems but not modems themselves.

Sample 5-1

Expanded Definition of a Modem