



An acoustic coupler like this links a computer to the telephone network.

significant digit is 1, and the weighting factor increases by a factor of 2 for each digit position to the left. In this way, the weighting factors are (from right to left) 1, 2, 4, 8 and so on for numbers having more digits. Thus, the binary number 1001 is equivalent to the decimal number given by:  $(1 \times 8) + (0 \times 4) + (0 \times 2) + (1 \times 1)$  equals 9.

**Binary number.** A number represented in binary notation.

**Bit.** Contraction of **Binary digit**. A binary digit is one of the two digits, represented by 0 and 1, that are used in the binary number system.

**Booting or Bootstrapping.** Using certain preliminary instructions to load a program into a computer.

**Breakpoint.** A point at which a program stops automatically to check that it is operating correctly.

**Buffer.** A temporary storage area to hold information during transfers from one part of the system to another, for example from the keyboard to the computer's central processing unit (CPU). A buffer can be used to regulate the way data are passed between devices operating at different speeds, such as a computer and a much slower

printer, thus making more efficient use of each.

**Bug.** An error or fault in either a program or the computer itself.

**Bus.** A path or channel through which data and signals can be transferred.

**Byte.** A group of eight bits, which forms the smallest portion of memory that the CPU can recall from, or store in memory. Its contents can be any binary number from 00000000 to 11111111.

## C

**CAD.** Computer Aided Design. The use of computers in design. They can help in a wide variety of projects, from the design of cars and electronic circuits to the creation of home interiors.

**CAE.** Computer-Aided Education. The use of the computer to help with education. CAI (Computer-Aided Instruction) and CAL (Computer-Aided Learning) are two aspects of CAE.

**Cartridge.** A specially packaged memory chip containing software which can be plugged directly into

a special socket that appears on the computer.

**Cassette.** Ordinary audio cassettes are used to store programs and data for home computers.

**Character.** Any symbol that can be represented in a computer and displayed by it, including letters, numbers and graphics symbols.

**Character block.** The group of dots on a display screen by means of which a single character may be displayed by selective illumination of some of the dots.

**Character set.** The set of all the letters, numbers and symbols available on a computer.

**Character string.** A sequence of characters that can be stored or manipulated as a single unit, e.g. a word or collection of words.

**Chip.** The tiny slice of silicon on which an integrated electronic circuit is fabricated. The term is also used to refer to the integrated circuit itself.

**Clock.** The master electronic timer that produces a signal to time and synchronise all the activities of a computer.

**Code.** 1. The commands and instructions that go to make up a program. 2. Unique patterns of binary digits, representing characters or instructions, that can be stored in the computer's memory.

**Command.** Any programming instruction that is expressed in a computer language.

**Compiler.** A program that converts complete programs written in a language like BASIC (which we can understand) into a language called *Machine code* (which devices inside the computer can understand).

**Computer generations.** The past technological and historical development of computer hardware is described in terms of four different stages or 'generations'. First generation computers used valves, the second generation used individual transistors, the third generation uses integrated circuits and the fourth generation uses Large Scale Integration (LSI) circuits. (See *Fifth generation*.)

**Computer literacy.** Being aware of computers: what they are, how they work and what they do.

**CP/M.** Control Program for Microprocessors. A standard *Operating system* found on many microcomputers.

**CPU.** Central Processing Unit. The component at the heart of any computer system that interprets instructions to the computer and causes them to be obeyed.

**Cursor.** A movable marker, usually a flashing square, indicating where the next character is to appear on the screen.

**Cursor control keys.** Keys that move the *Cursor* around the screen.

## D

**Daisy-wheel printer.** A printer that can produce high quality or 'typewriter quality' documents. Its characters are created by the impact of letters positioned at the end of a series of 'petals' arranged in a circle.

**Database.** A collection of data stored in a systematic way so that it is simple to retrieve or update any item or items.

**Data Capture.** The term which describes the collection of data from any outside sources that are linked in some way to a central computer.