

# 7 Postcodes

Since 1840, when the 'Penny Post' was introduced by *Roland Hill*, there have been many changes in the Postal Service, and, in recent years, many technological advances.

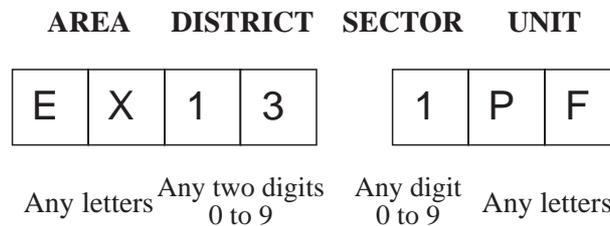
Much of the mail is now automatically sorted. Of particular importance has been the introduction of *postcodes*, which were first used in 1966 and now cover the whole of the UK.

This alpha-numeric system is made up of between 5 and 7 numbers and letters. Postcodes divide the whole country efficiently and effectively into

AREAS   DISTRICTS   SECTORS   UNITS

The mixture of letters and numbers is thought to be easier for people to memorise than, for example, just numbers. Do you think that this is true?

Here is a typical postcode:



## Example 1

- (a) What is the maximum number of AREAS possible using postcodes of this form?
- (b) For each area, how many DISTRICTS could there be?
- (c) For each district, how many SECTORS are possible?
- (d) For each sector, how many UNITS are possible?



## Solution

- (a) There are  $26 \times 26 = 676$  possible areas but this figure includes repetition of letters. If repetition is not allowed, there will be
 
$$676 - 26 = 650$$
 (or  $26 \times 25 = 650$ ) possible areas
- (b) Assuming that 0 is not allowed, there are 1, 2, . . . , 99 possible districts, i.e. 99 for each area.
- (c) There are 10 possible sectors for each district.
- (d) Assuming no repeats of letters, there are 650 possible units for each sector.

In fact, the Post Office uses about

120 areas   2900 districts   9000 sectors   2 000 000 units



## Exercise 1

- (a) *Using your answers to Exercise 1, how many UNITS could there be in the whole country?*
- (b) *There are about 24 million households and business addresses in the UK. Could each one have a unique postcode?*



## Exercise 2

- (a) *On average, how many districts per area are used?*
- (b) *How many sectors per district are used?*
- (c) *How many units per sector are used?*
- (d) *How many households/businesses are there per unit?*



## Activity 1

Why do you think that the Post Office does not identify *each* address with a unique postcode?



## Activity 2

Obtain your local postcodes from your nearest main Post Office. Illustrate the districts, sectors and units on a local map.