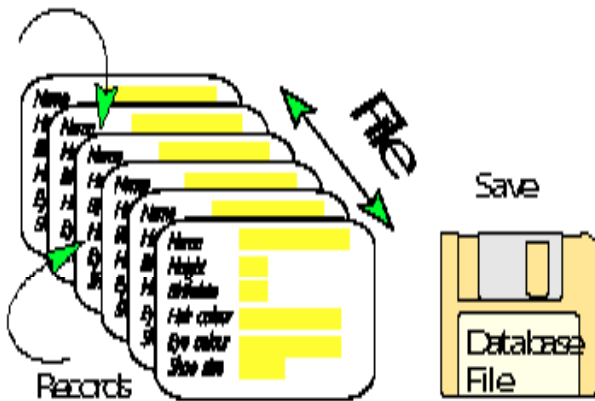# 3. About computer databases

What this is about

This tells you how database programs organise information.

Organising information

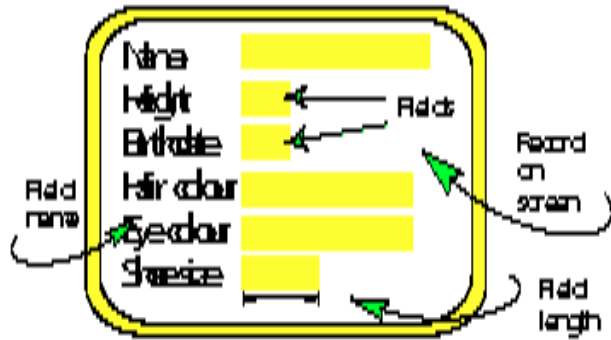We wanted to find out how much children vary so we collected some information from them.

We put our information under different headings. There was a heading for the name, a heading for how tall the people were, a heading for their shoe size, their hair colour, their eye colour and birthdate. The headings are called field names.

We entered the information about each child, in the spaces next to the headings. These spaces are called fields.

Database words: records and file

All the information about one child is called a record. We saved the records on a disk. All the records together make what computers call a file. (See figure)

Database words: fields, field names and field lengths.

Which type of field?

The fields store information. This might be words, numbers, dates or choices.

The name field is alphanumeric - meaning that it can contains words, letters or numbers. The name 'Jo' is alphanumeric.

The height field is numeric - it contains numbers only. A height of '110' is numeric.

The birth date field is a date field. '6/6/88' is a date.

Hair colour is a choice field - when you enter your information, you choose from brown, black, blonde or red.

Some information takes up more space than others. We call this space the field length. For example, the field for hair colour, needs 6 letter spaces to store the colour 'blonde'.

Why do all this?

Once you have the information in the computer, you can sort it into order. You might sort the children into order of their height.

You can draw a pie chart. A pie chart can show you the hair colour in the class. A bar chart can show you the heights in the class. A scattergraph can show you if taller people have bigger feet.

You can search the information to find all those with black hair. You can go on to find if there is a pattern between those with black hair and those with brown eyes.