Revison: Future tenses

Grammar focus

Each of these sentences is about the future. Circle the correct form in each sentence, according to what is being expressed.

Prediction without immediate evidence
Sport will become / is becoming more important in the future than it is now.

Prediction about the immediate future with direct evidence
That athlete will be hurting / is going to hurt himself with that javelin!

Decision taken at the moment of speaking
I think I'll take up / I'm taking up a sport to get myself in shape.

Intention
I'm going to see / I see if Ian wants to play football.

Arrangement
I'm taking part / I will take part in an important competition at the weekend.

She stays / She's going to stay in the Olympic village.

Action in progress at a future moment
This time tomorrow I play / I'll be playing tennis.

Action completed before a future moment
I will have finished / I am finishing training by seven o'clock.

Action in progress up to a future moment
In March, I will have been learning / I learn tennis for five years.

Event determined by a programme or timetable
The match starts / will have been starting at five on Wednesday.

Action referred to in a time clause after 'when', 'until', etc
I'll call you when I arrive / will arrive at the stadium.

13 Spreadsheets and databases

A Spreadsheet basics

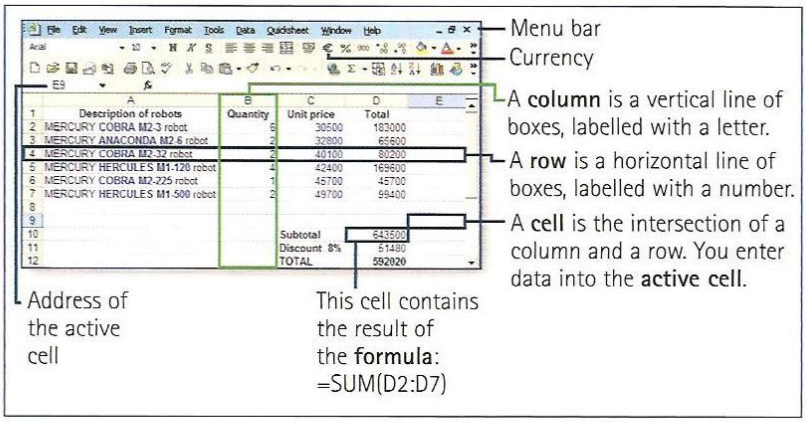
A **spreadsheet** program helps you manage personal and business finances. Spreadsheets, or worksheets, are mathematical tables which show figures in **rows** and **columns**.

A **cell** can hold three types of data: text, numbers and formulae.

Formulae are entries that have an equation which calculates the value to display; we can use them to calculate totals, percentages, discounts, etc.

Spreadsheets have many built-in **functions**, pre-written instructions that can be carried out by referring to the function by name. For example, =SUM(D2:D7) means add up all the values in the cell range D2 to D7.

The format menu lets you choose font, alignment, borders, etc.



B Parts of a database

Database basics

A **database** is essentially a computerized record-keeping system.

Each unit of information you create is called a **record** and each record is made up of a collection of **fields**. Typically, a single record consists of a set of field names like: Title, FirstName, Surname, JobTitle, TelNo and ID. You fill in a form with the relevant information for each field to add a new record to the database. There are different **data types**.

A database file stores information in **fields** grouped on **records**

- **Text** – holds letters and numbers not used in calculations
- **Number** – can only hold numbers used in calculations and reports
- **Memo** – can store long texts
- **Date/Time** – a date or time or combination of both
- **AutoNumber** – assigns a number to each record
- **OLE Object** – (object linking and embedding) holds sounds and pictures
- **Yes/No** – for alternative values like true/false, yes/no, on/off, etc.
- **Hyperlink** – adds a link to a website

Once you have added data to a set of records, **indexes** must be created to help the database find specific records and **sort** (classify) records faster. An **index** performs the same function as in the back of a book or in a library. For example, if you regularly search your database by surname, the index should be defined on this field.

Relational databases

Two database files can be **related** or joined as long as they hold a piece of data in common. A file of employee names, for example, could include a field called 'DEPARTMENT NUMBER' and another file, containing details of the department itself, could include the same field. This common **field** can then be used to link the two files together.

Extracting information from a database is known as performing a **query**. For example, if you want to know all customers that spend more than £9,000 per month, the program will search the name field and the money field simultaneously.

13.1 Look at A opposite and find the terms which correspond with these definitions.

1 software which allows data to be displayed and managed in a table format
2 it goes up and down and has letter labels
3 it goes across and has number labels
4 an area in a spreadsheet which contains data
5 the current cell where you enter information
6 mathematical equations that help you calculate and analyze data
7 ready-to-use formulae that help you perform specialized calculations, e.g. SUM, AVERAGE, etc.

13.2 Study the tables and then complete the text below with words from B opposite.

Students: Table

ID	Name	Surname	Address	Teacher ID
1	Lucy	Reeve	3 Pond Road	106
2	Joe	Davey	7 Oxbury Close	107
3	Adam	Moore	4 Quebec Street	108

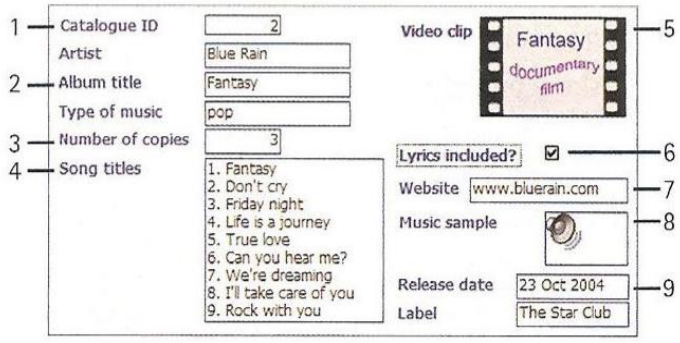
Teachers: Table

Teacher ID	Name	Surname	Address	Subject
106	James	Pullin	9 The Green	Maths
107	Liz	White	5 London Road	English
108	Karen	Southwell	8 Granary Street	ICT

Relationship between tables: the key field has the same value in both tables

A (1) ..... program allows the user to store, change and retrieve information.
A database file is a collection of records. Each (2) ..... contains a set of fields. Each (3) ..... holds a separate piece of information; for example, a student file contains a list of records, each of which consists of several fields which give their name, address, birthday, etc.
In a (4) ..... database, information is stored in tables that have a connection or link with one another (see tables above).
A database lets you create an (5) ....., a list of records ordered according to the content of certain fields; this helps you search and (6) ..... records into numerical or alphabetical order very fast. It also has a (7) ..... function which allows you to extract information that meets certain criteria.

13.3 Look at this form of a music collection. Label the data types with words from B opposite.



Form designed with Microsoft Access, a typical database program

You and computers

Which data fields would you include in these databases?

1 the patients of a hospital
2 a library catalogue