

# 9 Databases – Part 1

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English     | 中文  | Write it 3 times (English) |
|-------------|-----|----------------------------|
| database    | 数据库 | _____                      |
| record      | 记录  | _____                      |
| field       | 字段  | _____                      |
| primary key | 主键  | _____                      |
| Validation  | 验证  | _____                      |

## Recall

A **database** 数据库 stores data in an organised way, usually as a table.

## New ideas

Read these first, then do the Practice.

### ■ 1 Records and fields

| ID | name | age |
|----|------|-----|
| 1  | Ana  | 16  |
| 2  | Ben  | 15  |
| 3  | Cara | 17  |

row = a record

column = a field

ID = primary key

- a **record** 记录 is one row (all the data about one thing);
- a **field** 字段 is one column (one piece of data);
- a **primary key** 主键 is a field with a **unique** value that identifies each record (e.g. an ID).

## ■ 2 Validation

**Validation** 验证 checks that data entered makes sense — for example a range check:

age field: range check 0–120

enter 16 → accepted

enter 200 → rejected

**Watch out:** in a table, a **record** is a *row* (everything about one thing) and a **field** is a *column* (one piece of data) — don't swap them. A **primary key** is a field with a *unique* value, so no two records share it.

## Practice

Try these in order.

**9.1** What is a *database*? [1]

**9.2** In a table, what is a record? [1]

**9.3** In a table, what is a field? [1]

**9.4** What is a *primary key*? [1]

**9.5** Why must a primary key be unique? [1]

**9.6 Challenge.** A school stores data about students. Suggest a suitable primary key

field, and explain why “surname” would be a poor choice.

[2]