Unit 24 Program design and computer languages

1 Programming

A **In pairs, discuss what you think *programming* is.**

B **Look at the definition of *programming* in the Glossary. Is it similar to yours?**

```
#include <stdio.h>
main( )
{
printf("good morning\n");
}
```

This C program tells the computer to print the message 'good morning'

2 Steps in programming

A **Match the words (1–5) with the definitions (a–e).**

1 flowchart
2 source code
3 compiler
4 machine code
5 debugging

a Program instructions written in a particular computer language
b The techniques of detecting and correcting errors (or bugs) which may occur in programs
c A diagram representing the successive logical steps of the program
d A special program which converts the source program into machine code – the only language understood by the processor
e The basic instructions understood by computers; it consists of 1s and 0s (binary code)

B **Listen to Andrea Finch, a software developer, talking to a group of students on a training course about how a program is written and check your answers to A.**

C **Listen again and put these steps into the correct order.**

- [ ] Write instructions in a programming language
- [ ] Prepare documentation
- [1] Understand the problem and plan a solution
- [ ] Make a flowchart of the program
- [ ] Compile the program (to turn it into machine code)
- [ ] Test and debug the program

D **Listen again and make detailed notes. In pairs, use your notes to write a short explanation of what each step in C means.**