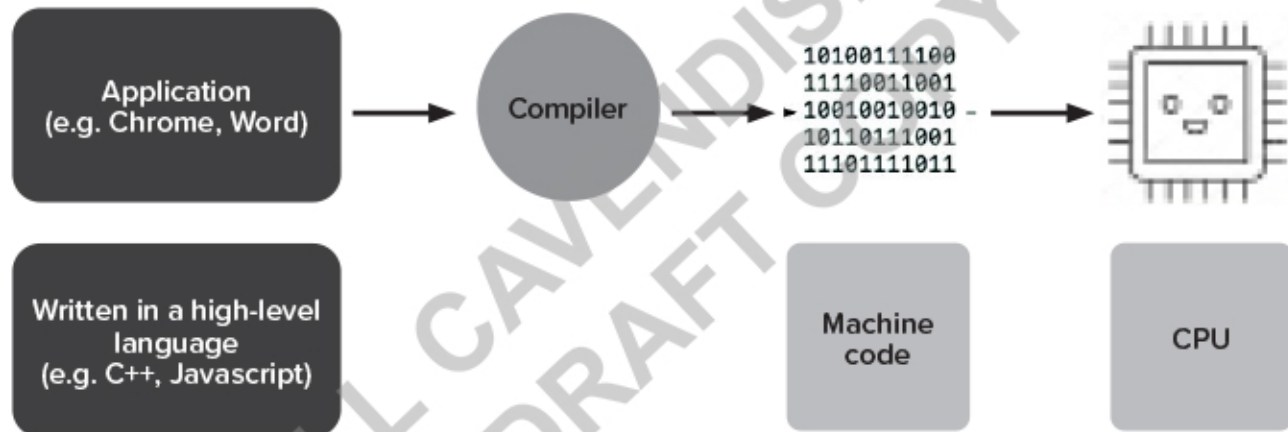


**Exercise 6** Compilers

Compilers convert into machine code the high-level language used in programming or by applications. This machine code can then be processed by the CPU.



1 Extension: There is another type of software called an interpreter. What is the difference between a compiler and an interpreter?

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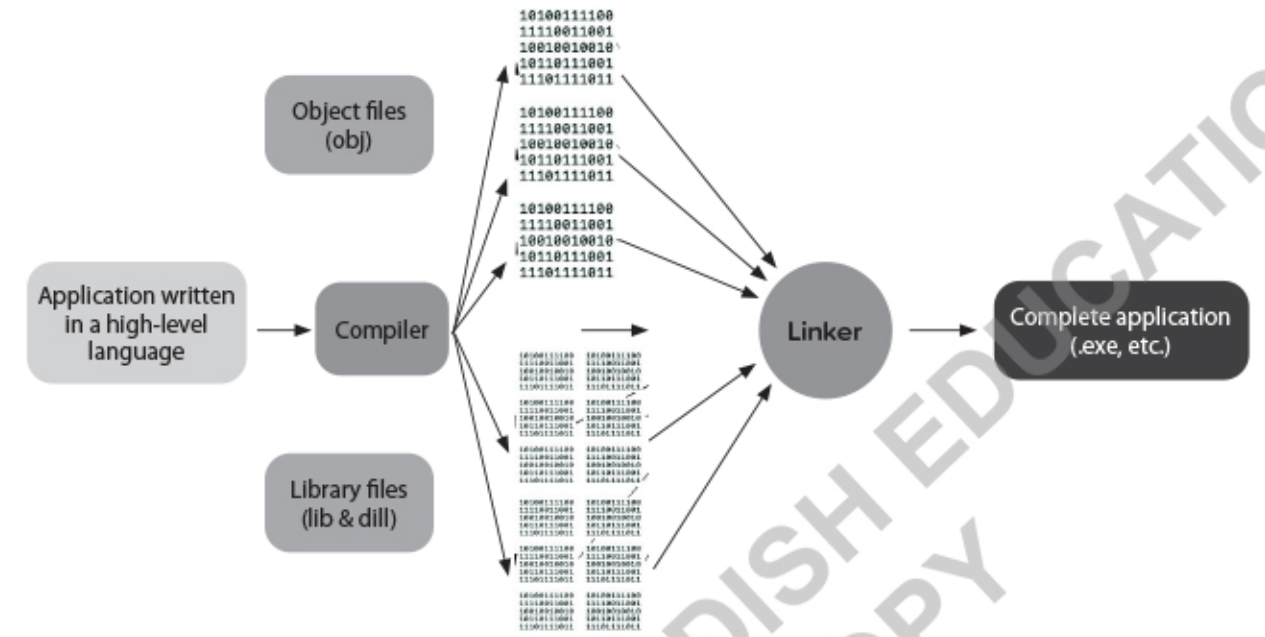
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**Exercise 7** Linkers

1 Linkers have an important function. Study the diagram below, then explain the flow through the diagram and how linkers work.




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**Exercise 8 Device drivers**

A device driver is needed for new peripherals so that they can communicate with the operating system and be controlled by the user.

1 List some examples of when a device driver would be installed on the following.

1 A PC

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2 A games console

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## Exercise 9

## Utility software

- 1 Colour in the HDD diagrams to show how defragmentation works.

- 1 Data on a HDD – each colour is a file.


- 2 As files are deleted, spaces appear.


- 3 After defragmentation, files are reordered and free space is now together.


- 2 Explain how defragmentation works and what the benefits are for the computer system.

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## Exercise 10

## Backup

- 1 What is the difference between a full backup and an incremental backup?

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- 2 Extension: Think of examples of when you may need a full backup and an incremental backup.

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## Exercise 11

## Compression

- 1 What are the advantages of compression files?

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## Exercise 12 Encryption

- 1 Explain the purpose of encryption and how it works.

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- 2 What types of data would be encrypted when using or sending data over the Internet?

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## Exam style questions

- 1 A student has just set up a gaming PC so they can play against friends online.

**Name** 4 devices used to input or output data which would be needed to play against friends online.

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_

- 2 Tick the following examples of utility software

	Utility software
Defragmentation	
Word processing	
Encryption	
Antivirus	
Database	
Internet explorer	
Backup	
Spreadsheets	