

Dormers Wells High School: Computer Science

Computer Science is all about understanding what a computer is, and then using it as a tool to solve problems in the real world. At high school, you will also learn how to control a computer by programming it.

Task 1: Software is the name for programs that are used on a computer system. Windows, Word and Chrome are all examples of software. Can you think of five more examples of software that you have used, and what specific task they perform?

1. Windows (control the computer)	2. Word (type documents)	3. Chrome (web browser)	4.
5.	6.	7.	8.

Task 2: Hardware is the name for the physical components that make up a computer. (These are the parts we can touch.) A mouse, motherboard and monitor are all examples of hardware. Can you think of five more examples of hardware, and their purpose?

1. Mouse (control the pointer)	2. Motherboard (connect all the components together)	3. Monitor (allow the user to see what they are doing)	4.
5.	6.	7.	8.

Task 3: We are surrounded by computers, although we may not recognise them because they are built into other devices and known as embedded systems. An example is your washing machine or mobile phone. Can you think of four more embedded systems?

1. Washing machine	2. Mobile phone	3.
4.	5.	6.

Task 4: Go to www.smallbasic.com and click **start coding online**. Try my code out (copy it out and click run, try it with different answers to see what happens).

Can you create 4 more computer science riddles? Use similes and metaphors to trick the user! You can copy and paste your code into a document so you can print it and show your new teacher in September.

Extension 1: find out how to change the text colour.

Extension 2: work out how to use a while loop so the program keeps asking the riddle until the user gets the answer right?

```
1 TextWindow.WriteLine("You might think I am alive BUT")
2 TextWindow.WriteLine("I am not, even though I am hung by my tail")
3 TextWindow.WriteLine("My two beady eyes are gone...")
4 TextWindow.WriteLine("Replaced by a single red eye in my belly")
5 TextWindow.WriteLine("What am I?")
6 answer = TextWindow.Read()
7 If answer = "Mouse" Then
8   TextWindow.WriteLine("Correct!")
9 Else
10  TextWindow.WriteLine("Wrong answer!")
11 EndIf
```