**Christmas Python Coding Competition**

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| **Activity 1 (worth up to 3 points):** |
| Father Christmas needs to organise his naughty and nice list so that (at the touch of a button) he can see which students have been naughty and which have been nice – can you help him out?  ***Tip****: Your program must print a list of nice students, followed by a list of naughty students – simple!* |
| **Visit:** [**https://coder.computerscienceuk.com/coder/**](https://coder.computerscienceuk.com/coder/) **and code your solution!** |
| *Add a screen shot of your completed solution below:*  [**https://coder.computerscienceuk.com/coder/WnwQ/**](https://coder.computerscienceuk.com/coder/WnwQ/) |

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| **Activity 2 (worth up to 5 points):** | |
| Father Christmas has no **elf**-confidence. He cannot make decisions for himself. What he needs is a “Magic 8 Ball” to help him decide what to do in the run up to Christmas.  Copy the code adjacent and complete it so that, depending on the random number generated, he can be given a job to do, such as “wrap present” or “feed his reindeer” etc! | import random  random\_number = random.randint(1,5)  print("Press enter to be given a job! ")  input()  if random\_number == 1:  print("Wrap some presents!")  elif random\_number == 2:  ... |
| **Visit:** [**https://coder.computerscienceuk.com/coder/**](https://coder.computerscienceuk.com/coder/) **and code your solution!** | |
| *Add a screen shot of your completed solution below:*  [**https://coder.computerscienceuk.com/coder/Z4ww/**](https://coder.computerscienceuk.com/coder/Z4ww/) | |

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| **Activity 3 (worth up to 5 points):** |
| Father Christmas goes all around the world and so needs to make sure he has money for all of his destinations, just in case he gets hungry and needs to buy himself a mince pie. He has £250 lunch money (I know, he is *larger* than life though!), but he doesn’t know how many Euros that will be. What Father Christmas wants is a “Pounds to Euros” Calculator – can you help him out?  ***Tip****: Your program must store an input for a value in pounds (integer number) and then output the correct value in Euros (look up the current exchange rate (what you need to multiply your pounds by) online).* |
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| *Add a screen shot of your completed solution below:*  [**https://coder.computerscienceuk.com/coder/1jYV/**](https://coder.computerscienceuk.com/coder/1jYV/) |

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| **Activity 4 (worth up to 5 points):** |
| Father Christmas has offered to take a child on his trip around the world on Christmas Eve, but his sleigh can only carry people over the age of 5 – otherwise it is just not safe enough. Before they go he wants to make sure the child can safely fly. If only he could work it out…  ***Tip****: Your program must ask the user for their age and then decide IF they can go on the sleigh ride or not.* |
| **Visit:** [**https://coder.computerscienceuk.com/coder/**](https://coder.computerscienceuk.com/coder/) **and code your solution!** |
| *Add a screen shot of your completed solution below:*  [**https://coder.computerscienceuk.com/coder/2Rg1/**](https://coder.computerscienceuk.com/coder/2Rg1/) |

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| **Activity 5 (worth up to 12 points):** |
| Father Christmas is bored. He wants to play a game. He wants to play a Guess My Number game. Can you help him?  ***Tip****: You need to create a program which stores a number (1-100) at random (see the code from task 2 for help here). The program should then ask Father Christmas for a number. Each time he enters a number the program should say higher or lower and then ask Bob for the number again. When Bob guesses correctly the program should say “Well done Bob!”.* |
| **Visit:** [**https://coder.computerscienceuk.com/coder/**](https://coder.computerscienceuk.com/coder/) **and code your solution!** |
| *Add a screen shot of your completed solution below:*  [**https://coder.computerscienceuk.com/coder/3ljO/**](https://coder.computerscienceuk.com/coder/3ljO/) |

**Once you have finished, hand your solutions to your teacher.**

**Good luck!**

**Note for Teachers:**

* **Suited to KS3 students with limited python experience (but could be suitable for year 10 students too)**
* **Students could team up or work on their own.**
* **Students should be given a lesson for these tasks**

**Marking Solutions:**

* **When awarding points for attempted solutions, award up to the maximum for the task, at your discretion.**
* **If students have some logic (but the code is not working) perhaps award a third of the available points.**
* **If students have a working solution, but without engaging print statements, perhaps award two thirds of the available points.**
* **If students have a fully working solution and have gone above and beyond the bare minimum of the task, award full marks.**