

## Year 12/13 Online Treasure Hunt

Cyber Security, Computer Programming and many digital roles require good problem-solving skills. This activity includes a variety of different puzzles for you to try. It may take a little while, but you don't need to complete it all at once. If you get stuck on one puzzle, move on to the next and come back to that one later. You can attempt the final challenge whenever you are ready, even if you are missing one of the answers – it will just make it a little harder.

### Let's get started!

You need find a secret code  
But something is not right  
Solve the puzzles set below  
To help you with your plight

Write your answers in a list  
Take the first letter of each  
Jumble them up any which way  
For destination's reach

### Clue 1

The first letter of the countries that each of these flags represent spells out traditional costume for a foreign country, but which country is it?



### Clue 2

This one's just a simple cipher, fit for an Egyptian leader

Ymnx nx fs Fzxywfnqfs rfwxzunfq xtrjynrx fkkjhyntsfyjqd pstbs fx Xpnuud

### Clue 3

Lowri sends a message to her friend Rhys with a date and time stamp of 1585655340, and gets a reply on 1586345520. How many days did she have to wait for the reply?

### Clue 4

Here's a well-known sequence. What is the first letter of the last item given?  
FF0000 FFFF00 FFC0CB 008000 800080 FFA500 0000FF

### Clue 5

Reverse image lookup is a tool used to find and locate images using the power of the Internet. First, save the image to your computer, then open a Google image search page (<https://.images.google.com>). Click on the camera icon in the search box to upload your image and hit the search button. Any matching or similar images will be displayed with a link to the corresponding web site.

See if you can find out the surname of this famous women using a reverse image search.



## Clue 6

Odd one out





## Clue 7

Here's a nifty app to keep you safe. If you are ever lost, and you know the 'What3words' location, you can give that code to anyone and they will be able to find you, to an accuracy of 3 metres squared.

Use the app or website <https://what3words.com> to find what3words would lead you to the Norwegian Church, Harbour Drive, Cardiff

## Clue 8

If Bulgaria is wise and Wellington is timid, who is the inventor?

## Clue 9

Copy this Python code into a Python compiler (you can do this on your computer if you know how, or use this website to copy and paste the code <https://trinket.io/features/python3> ). Once you've run the code, answer the question.

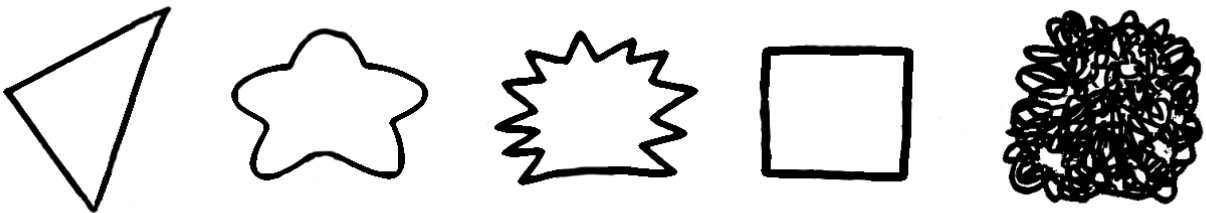
```
secret = 'Tfbhw irkseh t.m taikc ahzkiunn oerl hiwi.aaos w oparenrx yne onpzcllr uyndp  
itdrilpo dn o rddrleoivu.iswcedebu umuiws heicdy. Wsbrmyqi non uai zswiwl vygine trelmyla  
ynnyyir trdoxu urkei onvug r niwwro urecligdy twu uarfr i ey2on.'  
result = secret[0]  
for i in range(3, len(secret), 3):  
    result += ' ' + secret[i]  
print(result)
```

### Clue 10

MCMXCV → GoldenEye  
MCMLXXXIII → Never Say Never Again  
MMXV → Spectre  
MCMLXVII → ?

### Clue 11

These items belong to a set, but what is the first letter of the first item in the set?



### Clue 12

What comes next?

Hammersmith  
Goldhawk Road  
Shepherd's Bush  
Wood Lane  
Latimer Road  
Ladbroke Grove  
Westbourne Park  
Royal Oak  
???



## Clue 13

Cyber Chef is a handy tool that you can use to carry out many different operations associated with cyber security, forensics, encryption and more.

The message below has been encrypted using one of the encryption tools on cyber chef (<https://gchq.github.io/CyberChef/>), but which one?

Hint: Copy and paste the sentence into Cyber Chef, then try some of the different encryption / encoding methods to convert it into something more meaningful!

Xsziovh Yzyyztv dzh z nzgsvnzgrxrm zmw xlnkfgvi krlmvi dsl wvhrtmvw gsv urihg zfglnzgrx xlnkfgvmt vmtrmvh. Sv rmevmgvw xlnkfgvih yfg wrwm'g yfrow gsvn.

## To finish

You've got the letters, now what?

Remember the letters are all mixed up  
An anagram for sure  
The code is the latitude of this place  
So you need to do one more

Visit the website shown below  
Type the name of the place you've found  
Find the value that isn't long  
And with glory you'll be crowned

Search the footer of these clues  
Some codes are there in sight  
If what you've found is also there  
Then you have got it right!

<https://latlong.net>