

Cracking Cryptography Worksheet

Learning outcomes

You'll learn the basics of cryptography and code cracking skills used in cyber security and you'll learn more about jobs that use these skills

Introduction

What is cryptography?

Do you know of any code cracking methods?

When do you think it is necessary to be able to crack codes?

Let's have a look at the basics of cryptography and become familiar with some key terms such as encrypt and decrypt. Watch this [video](#) (1) before we start the activities.

We've also produced a video guide for this activity, and you can view it [here](#) (2).

Activity on next page...

Activity

Caesar cipher

Cryptography has been used throughout history, as early as the time of the Roman empire! Julius Caesar created his own method to encrypt and decrypt messages – this is known as the Caesar cipher. Let's make our own Caesar cipher by following this easy video [tutorial](#) (3).

So, the key is how many times you move the inner circle clockwise.

Can you crack the following codes?

Clue, they are delicious types of food!

1. Fuuqj (key = 5)
2. Ova kvn (key = 7)
3. Lxxtrn (key = 9)

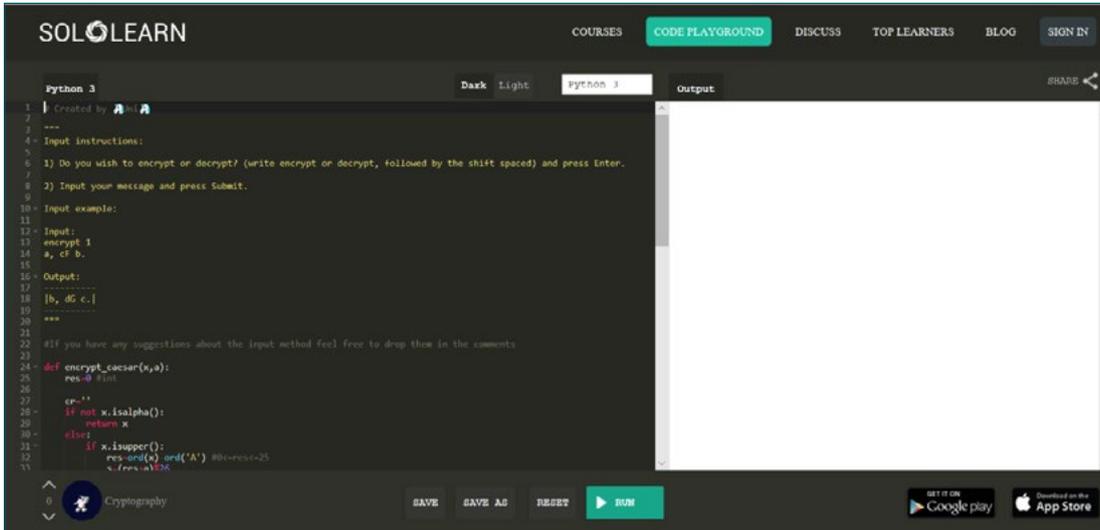
Now try making some of your own codes!

Activity on next page...

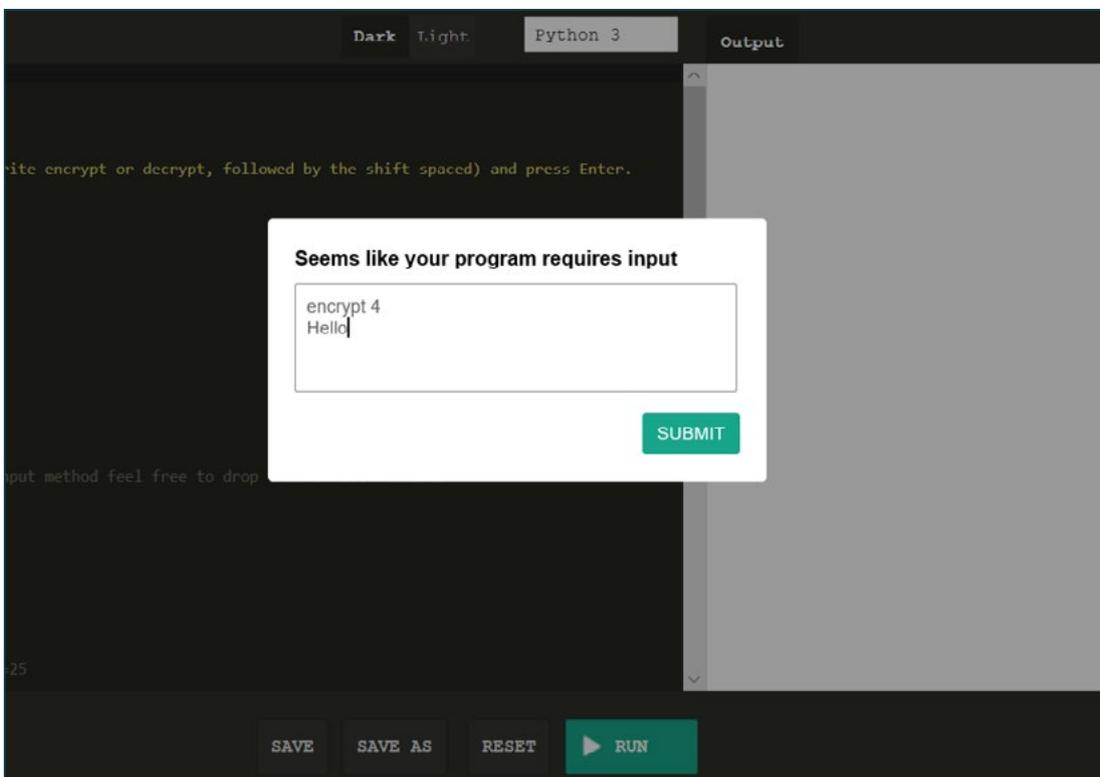
Online Activity

Let's go one step further. Now it's time to crack some codes using an online computer program called [Sololearn](#) (4) Your screen should look like this:

1. Click "RUN" to begin



2. When the text box appears, type whether you want to "encrypt" or "decrypt" your code. Then hit the spacebar. Next type in your key. Hit return. Now type the word or message you would like to code or decode. Then click "SUBMIT".



Website references

1. What is Cryptography? <https://bit.ly/2Mg9MN8>
2. Cracking Cryptography activity guide video <https://bit.ly/2Y9iOSX>
3. How to make a Caesar cipher <https://bit.ly/3cra26q>
4. Sololearn <https://bit.ly/2XIXLvJ>
5. Forensic computer analyst <https://bit.ly/3gETTxP>
6. Software developer <https://bit.ly/3eGczvg>
7. Ethical Hacker <https://bit.ly/2ZYWbC0>
8. My World of Work <https://www.myworldofwork.co.uk/>