



# Cracking Cryptography Lesson Plan

## Aim

An introduction to cryptography and code cracking skills used in cyber security and the jobs linked to these.

## Mapping

CES 'I Can' Statements	CMS Themes
<ul style="list-style-type: none"> <li>★ I can discuss the relevance of skills to the wider world and make connections between skills and the world of work</li> <li>★ I can demonstrate and apply the skills I have learnt across the curriculum in relation to the world of work</li> </ul>	<ul style="list-style-type: none"> <li>★ Horizons</li> </ul>

## Learning Outcomes

Young people will:

- ★ Learn how to use a Ceasar cipher
- ★ Crack codes through problem solving and pattern recognition
- ★ Encrypt and decrypt messages using an online coding program
- ★ Explore careers that use these skills.

Activity on next page...



## Instructions

### Before you start

You will need access to a laptop or tablet and access to this website to complete the activity:

- ★ Access to the Cracking Cryptography [Video Guide](#) (1)
- ★ Access to the Cracking Cryptography Worksheet
- ★ Access to the [Sololearn](#) (2) Website
- ★ A Sololearn Account

## Follow-up

The activity looks at roles in computer science, cyber security and digital forensics:

[Forensic computer analyst](#) (3), [Software developer](#) (4), [Ethical Hacker](#) (5)

They can find out about related apprenticeships on [Apprenticeships.scot](#) (6)

Foundation Apprenticeships – [Engineering](#) (7), [Software Development](#) (8), [Hardware and System Support](#) (9)

Modern Apprenticeships – [Information Security](#) (10), [Engineering](#) (11), [IT and Telecommunications](#) (12)

Graduate Apprenticeships – [IT: Software Development](#) (13)

## Website references

1. Cracking Cryptography activity guide video <https://bit.ly/2Y9iOSX>
2. Sololearn <https://bit.ly/2XIXLvJ>
3. Forensic computer analyst <https://bit.ly/3gETTxB>
4. Software developer <https://bit.ly/3eGczvg>
5. Ethical Hacker <https://bit.ly/2ZYWbC0>
6. Apprenticeships <https://www.apprenticeships.scot/>
7. Engineering Foundation Apprenticeship <https://bit.ly/3dvt6Tt>
8. Software development Foundation Apprenticeship <https://bit.ly/2AwYxgC>
9. Hardware and System Support Foundation Apprenticeship <https://bit.ly/3eE7IA6>
10. Information Security Modern Apprenticeship <https://bit.ly/3gPFi2E>
11. Engineering Modern Apprenticeship <https://bit.ly/2XrFtJM>
12. IT and Telecommunications Modern Apprenticeship <https://bit.ly/3dycQA0>
13. IT: Software Development Graduate Apprenticeship <https://bit.ly/2XvrlyU>