

0001110010010000001110
1001000000011000100111
100001101010 CRACKING 11
010000110010 CODE 000011
11110111001 BREAKERS 1100
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KS2

01 – The General Post Office (GPO) – The Heart of Communication Teachers' Notes

What does it take to be an engineer?

General Post Office (GPO) engineers worked hard to build Colossus, a code-breaking machine in the Second World War. Students work in teams to decide what skills are needed to be an engineer, apply for the job of an engineer and make their own Dollis Hill ID card.

Background information

- The General Post Office (GPO) employed engineers in the Research Station at Dollis Hill in North London.
- During the Second World War the Germans sent messages using teleprinters. The messages were disguised with codes to keep them top secret.
- Teleprinters used a 5-bit code – 5 “on” and “off” pulses that represented letters and numbers.
- In an effort to win the war, Britain worked hard to intercept secret messages from the Germans.
- In 1940, a new German code was discovered. Tommy Flowers, a GPO engineer, was tasked with building a machine to crack the code.

Historical context

- Over 60 million people died during the Second World War.
- Britain was part of the ‘Allies’ and Germany was part of the ‘Axis’.

Key words

Engineer | Teleprinter | Encrypted

Learning outcomes

- To discuss the skills needed to be an engineer and apply for an engineering job at the Research Station at Dollis Hill.

Prepare for the activity

- Print student activity cards.
- Download classroom PowerPoint.
- Prepare film clip.
- Divide students into groups.
- Have scissors and glue at the ready.

Run the activity

- Show the film clip.
- Use the PowerPoint to introduce key words, describe a Research Facility, discuss engineering skills and explain Colossus was ‘Top Secret’.
- In groups, ask students to use the skills sheet to discuss engineering skills.
- Ask students to fill out the job application form.
- Explain students have been successful. They must make their own Dollis Hill ID card.
- Top tip: Take photos to stick on the card, or ask them to draw their face.

Extension activities

- Role play – ask students to interview each other for the job of a General Post Office engineer.
- Class discussion about engineers – do they think it is a job for boys or girls?

