Cyber Security

Discover how to protect people, information and digital systems — and think like a cyber defender.

What is cyber security?

Cyber security protects the digital systems, data and people that society relies on — from schools and hospitals to banking, transport and games. It includes preventing attacks, detecting and responding to incidents, testing for weaknesses with permission, and protecting privacy. Cyber security combines technology with human behaviour, risk, law and ethics; it is not just hacking or coding.

Why does it matter?

Cyber security is one of the UK government's six frontier technologies. As more of our lives depend on connected services, organisations need people who can spot threats, investigate problems and build trust. Careers range from security analysts and incident responders to ethical testers, engineers and specialists in risk and awareness.

Our TechFirst cyber security activities

DISCOVER · 45 MIN · KS3 | TF-CYB-DIS-001

Discover Cyber Security

An introductory session exploring digital threats, safe online behaviour and the people who protect systems and data, with accessible challenges and discussion.

EXPLORE · 45–75 MIN · KS3–KS5 | TF-CYB-EXP-005

Who Stole the Frontier Lab Laptop?

Teams investigate a fictional theft using CCTV images, access logs, messages and other evidence, testing hypotheses and explaining their conclusions.

EXPLORE · 60–75 MIN · KS4–KS5 | TF-CYB-EXP-002

A Rap Beef: An Introduction to Security Investigations

A proposed investigation inspired by Microsoft/KC7: students follow digital clues to understand how cyber investigators piece together events.

EXPLORE · 60–75 MIN · KS3–KS4 | TF-CYB-EXP-003

You've Been Hacked!

A proposed NCSC-inspired incident-response challenge: teams assess a simulated cyberattack and decide how to contain harm and recover safely.

EXPLORE · 60–75 MIN · KS3–KS4 | TF-CYB-EXP-004

Crack the Secret

Teams decrypt prepared messages using Caesar and substitution ciphers, spot weaknesses in simple encryption and propose safer ways to protect information.

How we learn

Our coach-led sessions use a simple tell–do–reflect approach: introduce an idea, try a collaborative challenge, then discuss the evidence, decisions and lessons. Students practise teamwork, curiosity, communication, ethical judgement and problem-solving.

For schools, students and employers: discover the programme and enquire about taking part at **techfirst@digitalinnovators.co.uk**