KS3 Supercurricular COMPUTING
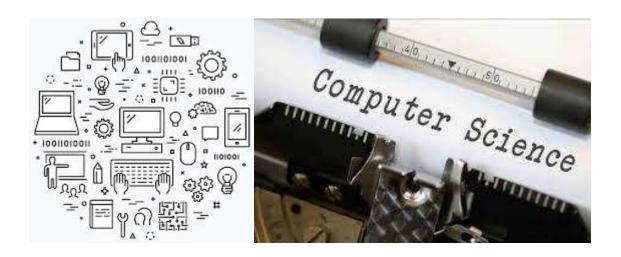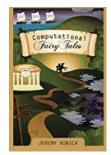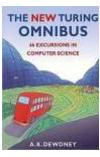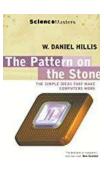

For up to date information on supercurricular opportunities in Computing join the department's Computing Society Google Classroom by emailing your Computing teacher and follow the department Twitter feed (@kech_compsci).
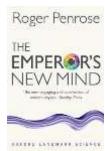
Reading

Computational Fairy Tales, J. Kubica   978-1477550298

The new Turing Omnibus: 66 Excursions in Computer Science, A.K. Dewdney   978-0805071665

 The Pattern on the Stone: The Simple Ideas that Make Computers Work, D.Hillis

Computing with Quantum Cats, J. Gribbin   978-0552779319

The Emperor's New Mind, R. Penrose   978-0198784920

Listening and viewing

BBC Click   https://www.youtube.com/c/BBCClick/videos?app=desktop

Computerphile   https://www.youtube.com/user/Computerphile?app=desktop

Inventions that changed the world   https://www.youtube.com/watch?v=rTsHnxS5bg0

Carrie Anne Philbin: Crash course in Computer Science https://www.youtube.com/watch?v=tpIctyqH29Q&list=PLq0Imqvdtkf50DOOpC47G5MXTc3GxUFC4

TED Technology   https://www.ted.com/topics/technology

This Week in Tech podcast   https://podcasts.apple.com/us/podcast/this-week-in-tech-video-large/id358612594

Stack Overflow podcast   https://stackoverflow.blog/podcast/

Mr Brown CS   https://www.youtube.com/channel/UCsBxhDfwURg-vQASN2ZeHwg

New Scientist – Tech pages   https://www.newscientist.com/subject/technology/

Competitions

Bebras (all year groups, open to all)   Challenge.bebras.uk

TCS Oxford (qualify via Bebras)   Challenge.bebras.uk

Braben Cup (open to all*, team competition)   Persecoding.com

*Relies on Python coding skills

Resources

Learn HTML/CSS/Python   W3schools.co.uk

BBC Bitesize   https://www.bbc.co.uk/bitesize/subjects/z34k7ty

CAS TV   https://www.youtube.com/user/computingatschool/videos

Stack Overflow   https://stackoverflow.com/

MIT Intro to CS and Programming   https://www.edx.org/course/introduction-to-computer-science-and-programming-7

EDX programming / CS   https://www.edx.org/learn/computer-programming

CyberChef (great for encryption/code puzzles)   https://gchq.github.io/CyberChef/

   Note: Some of the above may be blocked inside school!

Following

@kech_compsci

@SchoolCoders

@BBCClick

@TheGadgetShow

@guardiantech

@BBCTech

@Codecademy

@CompSciFact

Doing

National Museum of Computing   **Tnmoc.org.uk**

CyberFirst Defenders & Futures   **https://www.ncsc.gov.uk/section/education-skills/schools**
[Competitions, games and free courses (some residential)]

Codecademy   **https://www.codecademy.com/catalog**
[platform for learning various coding languages]

CodeClub (9-13)   **https://codeclub.org/en/**

Cyber Explorers   **https://www.cyberexplorers.co.uk/**
[UK gov supported Cyber-based games]