# **ICT & COMPUTER SCIENCE**

## **SUPER CURRICULUM ACTIVITIES**

### <u>WEBSITES:</u>

- Teach ICT: Website: <u>https://www.teach-ict.com/</u>
- BBC Bitesize Computer Science: Website: <u>https://www.bbc.co.uk/bitesize/subjects/z34k7ty</u>
- Computer Science Field Guide: Website: <u>https://www.csfieldguide.org.nz/</u>
- Computerphile: Website: <u>https://www.youtube.com/user/Computerphile</u>
- National Museum of Computing: Website: <u>https://www.tnmoc.org/</u>

## <u>BOOKS:</u>

- "Python Crash Course: A Hands-On, Project-Based Introduction to Programming" by Eric Matthes: Website: <u>https://nostarch.com/pythoncrashcourse2e</u>
- "Hello World!: Computer Programming for Kids and Other Beginners" by Warren Sande and Carter Sande: Website: <u>https://nostarch.com/helloworld</u>
- "Code: The Hidden Language of Computer Hardware and Software" by Charles Petzold: Website: <u>https://www.charlespetzold.com/code/</u>
- "Invent Your Own Computer Games with Python" by Al Sweigart: Website: <u>https://inventwithpython.com/invent4thed/</u>
- "Cracking the Coding Interview: 189 Programming Questions and Solutions" by Gayle Laakmann McDowell: Website: <u>http://www.crackingthecodinginterview.com/</u>

## SPECIALIST MAGAZINES/ARTICLES/JOURNALS:

- "IEEE Spectrum": Website: <u>https://spectrum.ieee.org/</u>
- "Communications of the ACM": Website: <u>https://cacm.acm.org/</u>
- "The MagPi": Website: <u>https://magpi.raspberrypi.org/</u>
- "Make: Magazine": Website: <u>https://makezine.com/</u>
- "Codecademy Articles": Website: <u>https://www.codecademy.com/articles</u>

## <u>PODCASTS:</u>

- "Codebreaker" This podcast explores the intersection of technology and society. Website: <u>Codebreaker Podcast</u>
- "The Turing Podcast" This podcast dives into various aspects of computer science. Website: <u>The Turing Podcast</u>
- "Command Line Heroes" This podcast explores the history and evolution of the tech industry. Website: <u>Command Line Heroes</u>
- "Syntax Tasty Web Development Treats" This podcast covers web development topics and trends. Website: <u>Syntax.fm</u>
- "Talk Python to Me" This podcast focuses on Python programming. Website: <u>Talk</u> <u>Python to Me</u>

#### FILMS AND DOCUMENTARIES:

- "The Social Network" (2010) Film Website: <u>https://www.imdb.com/title/tt1285016/</u>
- "The Imitation Game" (2014) Film Website: https://www.imdb.com/title/tt2084970/
- "The Code: Story of Linux" (2001) Documentary Website: https://www.imdb.com/title/tt0308808/
- "Deep Web" (2015) Documentary Website: <u>https://www.imdb.com/title/tt3312868/</u>
- "Lo and Behold: Reveries of the Connected World" (2016) Documentary Website: https://www.imdb.com/title/tt5275828/

#### YOUTUBE CHANNELS:

- Craig n Dave Link: <a href="https://www.youtube.com/user/craigndave/videos">https://www.youtube.com/user/craigndave/videos</a>
- Crash Course Computer Science Link: <u>https://www.youtube.com/playlist?list=PL8dPuuaLjXtNlUrzyH5r6jN9ullgZBpdo</u>
- The Coding Train Link: <u>https://www.youtube.com/user/shiffman</u>
- Computerphile Link: <u>https://www.youtube.com/user/Computerphile</u>
- FreeCodeCamp Link: <u>https://www.youtube.com/c/Freecodecamp</u>

#### <u>MOOCS:</u>

- Harvard CS50's Introduction to Computer Science Link: <u>https://cs50.harvard.edu/x/2021/</u>
- Codecademy Link: <u>https://www.codecademy.com/</u>
- Coursera: Python for Everybody Link: <u>https://www.coursera.org/specializations/python</u>
- edX: Introduction to Computer Science and Programming Using Python Link: <u>https://www.edx.org/professional-certificate/introduction-to-computer-science-and-programming-7</u>
- Unifrog Example: Introduction to Cybersecurity Link: (Link provided by Unifrog)

#### <u>ONLINE SEMINARS/LECTURES:</u>

- Online Seminars/Lectures: TED Talks Technology Link: <u>https://www.ted.com/topics/technology</u>
- Google Developers Live Link: <u>https://developers.google.com/events</u>
- Microsoft Virtual Academy Link: <u>https://mva.microsoft.com/</u>
- Harvard University CS50 Guest Lectures Link: <u>https://cs50.harvard.edu/lectures</u>
- YouTube EDU Link: <u>https://www.youtube.com/education</u>

#### <u>Social media accounts:</u>

- Code.org
  - Instagram: <u>https://www.instagram.com/codeorg/</u>
  - Twitter: <u>https://twitter.com/codeorg</u>
- GitHub Education
  - o Instagram: <u>https://www.instagram.com/githubeducation/</u>

- Twitter: <u>https://twitter.com/GitHubEducation</u>
- Adafruit Industries
  - o Instagram: <u>https://www.instagram.com/adafruit/</u>
  - Twitter: <u>https://twitter.com/adafruit</u>
- MIT CSAIL (Computer Science and Artificial Intelligence Laboratory)
  - Instagram: <u>https://www.instagram.com/mit.csail/</u>
  - Twitter: <u>https://twitter.com/MIT\_CSAIL</u>
- Girls Who Code
  - Instagram: <u>https://www.instagram.com/girlswhocode/</u>
  - Twitter: <u>https://twitter.com/girlswhocode</u>

#### <u>PLACES TO VISIT:</u>

- The Museum of Liverpool: <u>https://www.liverpoolmuseums.org.uk/museum-of-liverpool</u>
- The Tech Climbing Centre: <u>https://www.thetechclimbingcentre.com/</u>
- University of Liverpool's Department of Computer Science: <u>https://www.liverpool.ac.uk/computer-science/</u>
- Museum of Science and Industry (MOSI) Manchester: <u>https://www.msimanchester.org.uk/</u>
- Catalyst Science Discovery Centre Widnes: <u>https://www.catalyst.org.uk/</u>

#### LOCAL CLUBS OR SOCIETIES:

- Wirral Raspberry Jam: <u>https://www.wirraljam.org.uk/</u>
- Wirral Code Club: <u>https://www.codeclub.org.uk/</u>
- Wirral STEM Hub: https://www.wirralstem.co.uk/
- Wirral Libraries Code Club: <u>https://www.wirrallibraries.net/events/</u>

#### CHALLENGES AND COMPETITIONS:

- UK Bebras Challenge: <u>https://bebras.uk/</u>
- Cyber Discovery: <u>https://www.joincyberdiscovery.com/</u>
- The Big Bang Competition: <u>https://www.thebigbangfair.co.uk/competition/</u>
- UK Robotics Week Challenges: <u>https://www.roboticsweek.uk/challenges/</u>
- TeenTech Awards: <u>https://www.teentech.com/teentech-awards/</u>