**SUBJECT-SPECIFIC ENRICHMENT OPPORTUNITIES**

**SUBJECT: Computer Science**

**THE SCHOOL**

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| 1 | Recommended books:  |
| 2 | Documentaries/ films/podcasts:* The Imitation Game (film – PG 13)
* Social Network (film – 12A)
* Silicon Cowboys (film)
* Print the Legend (film)
* Lots more on Netflix…
 |
| 3 | Activities:* Programming
* Build a computer
* Micro:bits
* Raspberry Pi’s
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| 4 | Places to visit: * Bletchley Park
* Science Museum
* Computing Live Event
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| 5 | Competitions:* Bebras Contest
* Cyber First Girls Competition
* PA Consulting Annual Raspberry Pi Competition
* More at - <https://community.computingatschool.org.uk/resources/43/single>
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**JUNIOR COLLEGE**

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| 1 | Recommended books:* 21 Lessons of the 21st Century - Yuval Noah Harari
* The Soul of a New Machine – Tracy Kidder
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| 2 | Documentaries/ films/podcasts:* The Imitation Game (film – PG 13)
* Social Network (film – 12A)
* Silicon Cowboys (film)
* Print the Legend (film)
* Terms and Conditions May Apply (film)
* We Are Legion: The Story of Hacktivists (documentary)
* Lots more on Netflix…
 |
| 3 | Activities:* Programming
* Robotics
* Build a computer
* Raspberry Pi’s
* Work experience
 |
| 4 | Places to visit: * Bletchley Park
* Silicon Valley
* Work experience
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| 5 | Competitions:* (international) Informatics Olympiad
* PA Consulting Annual Raspberry Pi Competition
* Technovation Challenege
* More at - <https://community.computingatschool.org.uk/resources/43/single>
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| 6 | Courses:* Programming courses online
* The Young Computer Scientist Programme
* Internships
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| 7 | Online talks:* View upcoming talks online
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**SENIOR COLLEGE**

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| 1 | Recommended books: * 21 Lessons of the 21st Century - Yuval Noah Harari
* The Soul of a New Machine – Tracy Kidder
* The Innovators: How a Group of Hackers, Geniuses, and Geeks Created the Digital Revolution – Walter Isaacson
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| 2 | Articles to read:* Many on - <https://www.sciencedaily.com/news/computers_math/computer_science/>
 |
| 3 | Documentaries/ films/podcasts:* Silicon Cowboys (film)
* Print the Legend (film)
* Terms and Conditions May Apply (film)
* We Are Legion: The Story of Hacktivists (documentary)
* Lots more on Netflix…
 |
| 4 | Activities:* Programming
* Robotics
* Build a computer
* Work experience
* University visits
 |
| 5 | Places to visit: * Universities
* Silicon Valley
 |
| 6 | Competitions:* (international) Informatics Olympiad
* PA Consulting Annual Raspberry Pi Competition
 |
| 7 | Courses:* Programming courses online
* The Young Computer Scientist Programme
* Internships
 |
| 8 | Online talks: * View upcoming talks online
 |
| 9 | Essay titles: * “Biotechnology, Medicine, and Computer Science”
* “Neuron Networks and Machine Learning”
* “Big Data Analysis”
* “Virtual Reality and its Connection to Human Perception”
* “The Success of Computer-assisted Learning
* <https://www.aresearchguide.com/30-computer-science-research-paper-topics.html>
* <https://www.ukessays.com/essays/computer-science/>
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