# Read/Watch/Visit

## Computing & GCSE Computer Science

| | Read | Watch | Visit |
|---|---|---|---|
| **Year 7** | • Code.org<br>https://studio.code.org/courses<br>Learn Computer Science: 23,420,394,289 lines of code written by 42 million students.<br>*This will give you an opportunity to practice writing code*<br><br>• **BBC Bitesize KS3 Computer Science**<br>https://www.bbc.co.uk/bitesize/subjects/zvc9q6f<br>You can learn here about a range of topics that extend their learning from classroom based activities.<br><br>**Other web links to practice coding:**<br>• Scratch (https://scratch.mit.edu)<br>• Hour of Code<br>https://hourofcode.com/uk/learn | • **BBC Teach – Computer Science (You Tube)**<br>https://www.youtube.com/playlist?list=PLcvEcrsF_9zLgDzVvFrf1LC5E0FETaCxl<br><br>*These videos cover a range of Computer Science elements that are covered in the Year 7 and Year 8 curriculum.* | • Arcade Club (Bury):<br>https://www.arcadeclub.co.uk/<br>Born out of a passion for classic gaming and arcade machines, the Arcade Club has grown from a small room to a converted mill in just a few short years. Driven by a passionate team and community, and an ever expanding library of games and facilities, the goal remains the same: provide access to as many people as possible to gaming's history and the joy of visiting the "local" arcade. Visit to see for yourself!<br><br>• iDEA (Duke of York) extra-curricular<br><br>The iDEA (Duke of York) is an online digital skills experience that will enable you to gain relevant experiences in Digital communications and technology. This is a similar scheme to the Duke of Edinburgh and is free. Afterschool extra-curricular clubs also support this. Ask your Computer Science teacher if you are interested in this and they can support your home learning. |
| **Year 8** | • Code.org<br>https://studio.code.org/courses<br>Learn Computer Science: 23,420,394,289 lines of code written by 42 million students.<br>*This will give you an opportunity to practice writing code*<br><br>• **BBC Bitesize KS3 Computer Science**<br>https://www.bbc.co.uk/bitesize/subjects/zvc9q6f | • **BBC Teach – Computer Science (You Tube)**<br>https://www.youtube.com/playlist?list=PLcvEcrsF_9zLgDzVvFrf1LC5E0FETaCxl<br><br>*These videos cover a range of Computer Science elements that are covered in the Year 7 and Year 8 curriculum.* | • Arcade Club (Bury)<br>Born out of a passion for classic gaming and arcade machines, the Arcade Club has grown from a small room to a converted mill in just a few short years. Driven by a passionate team and community, and an ever expanding library of games and facilities, the goal remains the same: provide access to as many people as possible to gaming's history and the joy of visiting the "local" arcade. Visit to see for yourself!<br><br>• iDEA (Duke of York) extra-curricular |

| | | | |
|---|---|---|---|
| | You can learn here about a range of topics that extend your learning from classroom based activities.<br><br>**Other web links to practice coding:**<br>• Scratch (https://scratch.mit.edu)<br>• Hour of Code https://hourofcode.com/uk/learn | | *The iDEA (Duke of York) is an online digital skills experience that will enable learners to gain relevant experiences in Digital communications and technology. This is a similar scheme to the Duke of Edinburgh and is free. Afterschool extra-curricular clubs also support this.* |
| **Year 9** | • **TV seems to know what you want to see: algorithms at work**<br>• **https://www.latimes.com/entertainment/tv/la-et-st-tv-section-algorithm-20141123-story.html**<br>• **How Algorithms rule the world**<br>• **https://www.theguardian.com/science/2013/jul/01/how-algorithms-rule-world-nsa**<br><br>• **Revision Guide: CPG GCSE OCR Computer Science Revision Guide (9-1)**<br>*ISBN: 9781782946021*<br><br>**Other web links:**<br>• Seneca Learning www.senecalearning.com<br>• GCSE bitesize website https://www.bbc.co.uk<br>• Algorithm A Day https://revisecomputerscience.com/algorithm-a-day/<br>• BBC News (Technology) https://www.bbc.co.uk/news/technology<br>• Cybersecurity NOVA Labs Game https://www.pbs.org/wgbh/nova/labs/lab/cyber/<br>• Replit Python for GCSE Computer Science (updated 2018**)** https://repl.it/<br><br>*When using these links, be sure to follow GCSE Computer Science on the OCR exam board. BBC news is topical and the information will update regularly in the news feed.* | • The Secret Rules of Modern Living: Algorithms<br>• https://www.bbc.co.uk/programmes/p030s6b3<br>*Mathematician Professor Marcus du Sautoy demystifies the hidden world of algorithms. By showing us some of the algorithms most essential to our lives, he reveals where these 2,000-year-old problem-solvers came from, how they work, what they have achieved and how they are now so advanced they can even programme themselves. The programme may not be available, but the clips are fascinating.*<br><br>• **CraignDave GCSE videos (YouTube)** https://www.youtube.com/channel/UC0HzEBLlJxlrwBAHJ5S9JQg<br>*This YouTube channel supports learners through a range of topics covered in the OCR specification for GCSE Computer Science.*<br><br>• **Terms and Conditions May Apply (Netflix/Sky)**<br>Terms and Conditions May Apply examines the cost of so-called 'free' services and the continuing disappearance of online privacy. People may think they know what they give up when they click 'I Agree' on companies like Facebook and Google. | • Visit the Museum of Science and Industry (Manchester)<br>• Bletchley Park, once the home of the WW2 Codebreakers (Milton Keynes)<br><br>*Both of these places enable you to develop your understanding of Computer Science by looking at how it impacts on the wider world.* |

| | | | |
|---|---|---|---|
| **Year 10** | • **TV seems to know what you want to see; algorithms at work**<br>• **https://www.latimes.com/entertainment/tv/la-et-st-tv-section-algorithm-20141123-story.html**<br>• **How Algorithms rule the world**<br>• **https://www.theguardian.com/science/2013/jul/01/how-algorithms-rule-world-nsa**<br><br>• **Revision Guide: CPG GCSE OCR Computer Science Revision Guide (9-1)**<br>*ISBN: 9781782946021*<br><br>**Other web links:**<br>• Seneca Learning www.senecalearning.com<br>• GCSE bitesize website https://www.bbc.co.uk<br>• Algorithm A Day https://revisecomputerscience.com/algorithm-a-day/<br>• BBC News (Technology) https://www.bbc.co.uk/news/technology<br>*When using these links students should be sure to follow GCSE Computer Science on the OCR exam board. BBC news is topical and the information will update regularly in the news feed.* | • The Secret Rules of Modern Living: Algorithms<br>• https://www.bbc.co.uk/programmes/p030s6b3<br>*Mathematician Professor Marcus du Sautoy demystifies the hidden world of algorithms. By showing us some of the algorithms most essential to our lives, he reveals where these 2,000-year-old problem-solvers came from, how they work, what they have achieved and how they are now so advanced they can even programme themselves.*<br><br>• **CraignDave GCSE videos (YouTube)** https://www.youtube.com/channel/UC0HzEBLlJxlrwBAHJ5S9JQg<br>*This YouTube channel supports learners through a range of topics covered in the OCR specification for GCSE Computer Science.*<br><br>• **The Social Network (Netflix/Sky)**<br>In 2003, Harvard undergrad and computer genius Mark Zuckerberg begins work on a new concept that eventually turns into the global social network known as Facebook. Six years later, he is one of the youngest billionaires ever. | • Visit the Museum of Science and Industry (Manchester)<br>• Bletchley Park, once the home of the WW2 Codebreakers (Milton Keynes)<br><br>*Both of these places enable you to develop your understanding of Computer Science by looking at how it impacts on the wider world.* |
| **Year 11** | • **Revision Guide: CPG GCSE OCR Computer Science Revision Guide (9-1)**<br>*ISBN: 9781782946021*<br><br>**Other web links:**<br>• Seneca Learning www.senecalearning.com<br>• GCSE bitesize website https://www.bbc.co.uk<br>• Algorithm A Day https://revisecomputerscience.com/algorithm-a-day/<br>• BBC News (Technology) https://www.bbc.co.uk/news/technology<br>*When using these links students should be sure to follow GCSE Computer Science on the OCR exam board. BBC news is topical and the* | • **CraignDave GCSE videos (YouTube)**<br>**Ethical – Legal – Cultural and Environmental concerns in Computing**<br>**https://student.craigndave.org/videos/1-8-ethical-legal-cultural-and-environmental-concerns**<br><br>• **CraignDave GCSE videos (YouTube)**<br>**Network topologies – protocols and layers in Computing**<br>**https://student.craigndave.org/videos/1-5-network-topologies-protocols-and-layers** | • Computer Science Clinic (extra-curricular)<br><br>*You should ensure that you use after school revision workshops to support your learning in preparing for examinations.* |

| | | | |
|---|---|---|---|
| | *information will update regularly in the news feed.* | • **CraignDave GCSE videos (YouTube)** https://www.youtube.com/channel/UC0HzEBLlJxlrwBAHJ5S9JQg<br><br>• **OCR 9-1 GCSE Computer Science Specimen Paper 1/2 Walkthrough (YouTube)**<br>https://www.youtube.com/watch?v=YuUt37FoQig<br>https://www.youtube.com/watch?v=us8NXEnCKeg<br>*Both of these tutorials will give hints and tips for learners to support them in responding to typical questions in the exam paper.*<br><br>• **The Great Hack (Netlix)**<br>Exploring how a data company named Cambridge Analytica came to symbolise the dark side of social media in the wake of the 2016 U.S. presidential election, as uncovered by journalist Carole Cadwalladr. | |