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## Westfield Academy - Curriculum Information

Pupils will develop their understanding of computer systems, computational thinking, and programming. Pupils will develop theoretical knowledge and practical skills needed for further study or work. The course is assessed through two written exams, covering computational thinking, algorithms, programming, and computer systems.

### BTEC DIT KS4 Y10

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|----------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Head of Department</b>                    | Claire Collacott                                                                    |  |
| <b>Head of Department email</b>              | clc@Westfield.academy                                                               |                                                                                     |
| <b>Lessons per 2 week cycle</b>              | BTEC 5                                                                              |                                                                                     |
| <b>Specification/Board details/Key stage</b> | Pearson Edexcel BTEC Tech Award L1/2 in Digital Information Technology QAN 603/7056 |                                                                                     |

### Term by term

| Autumn 1                                                                                                                                                                                                         | Spring 1                                                                                                                        | Summer 1                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>➤ User interfaces</li> <li>➤ Devices</li> <li>➤ Factors affecting the choice of user interface</li> </ul>                                                                 | <ul style="list-style-type: none"> <li>➤ Project planning techniques</li> <li>➤ Creating a project proposal and plan</li> </ul> | <ul style="list-style-type: none"> <li>➤ Characteristics of data and information</li> <li>➤ Representing information</li> </ul>                                                                      |
| Autumn 2                                                                                                                                                                                                         | Spring 2                                                                                                                        | Summer 2                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>➤ Hardware and software influences:</li> <li>➤ Hardware and software influences:</li> <li>➤ Design principles</li> <li>➤ Designing an efficient user interface</li> </ul> | <ul style="list-style-type: none"> <li>➤ Creating an initial design</li> <li>➤ Developing a user interface</li> </ul>           | <ul style="list-style-type: none"> <li>➤ Ensuring data is suitable for processing</li> <li>➤ Data collection</li> <li>➤ Quality of information</li> <li>➤ Sectors that use data modelling</li> </ul> |
| <b>Key Skills developed</b>                                                                                                                                                                                      | analytical thinking, critical thinking, quantitative skills, research skills, communication skills and problem-solving skills   |                                                                                                                                                                                                      |
| <b>Useful Websites</b>                                                                                                                                                                                           | s-cool.co.uk                                                                                                                    |                                                                                                                                                                                                      |

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|                                             | <a href="https://www.khanacademy.org">khanacademy.org</a><br><a href="https://www.bbc.co.uk/bitesize">bbc.co.uk/bitesize</a><br><a href="https://www.teach-ict.com">teach-ict.com</a><br><a href="https://open.education/openlearn">open.edu/openlearn</a> |
| Reading/Literacy requirements<br>/Key Words | Good level of English and Maths is required.<br>Social media<br>Storage devices<br>Health and safety<br>Security ethics<br>Data                                                                                                                            |
| Homework requirements                       | Quizzes, case studies, independent learning                                                                                                                                                                                                                |
| Personal Development Links                  | Studying Computing enhances critical thinking, problem-solving, communication, numeracy, research skills, and global awareness.                                                                                                                            |
| Trips/Visits (If applicable)                | TBC                                                                                                                                                                                                                                                        |