



Woodkirk Academy

## Computing

### How we identify MAA Students in Computing

More Academically Able (**MAA**) students:

- Learn and apply new ICT techniques quickly.
- Learn and apply new techniques independently by using tutorials and own initiative (less reliance on teacher demonstrations).
- Use their own initiative to exploit the potential of more advanced features of ICT tools.
- Transfer and apply ICT skills and techniques in new contexts/subjects, for example; being able to use databases for data collection in Geography, spreadsheets for budgeting in Maths & Google Sketchup in Product Design.
- Demonstrate an understanding of how the skills and techniques can be used in the world beyond school.
- Gain knowledge or learn a skill which they can successfully and independently put them into practice and hit or exceed their target grade.
- Explore independently beyond the areas studied in class, therefore showing interest and dedication in the subject above and beyond the classroom.
- Are inventive and original in their use of software or programming code. See problems quickly and use own initiative to solve problems.
- Regularly use high end, subject specific vocabulary.
- Reflect on own performance and always seek to improve their work.
- Set high personal standards.

### How we identify UA in Computing

A secondary school student is considered to be Upper Ability (**UA**) if the average level he/she achieved in his/her Key Stage 2 English and Mathematics SATs is Level 5 or above. Year 7 students who completed the new Key Stage 2 exams in 2016 have been identified using an equivalent measure.

### UA and MAA students in Computing are likely to show evidence of the following skills:

- Consistent high levels of engagement
- Understand and apply fundamental principles and concepts of computer science
- Analyse problems in computational terms
- Think creatively, innovatively, analytically, logically and critically
- Seeking to independently further their understanding and knowledge of the subject

- Extensive subject knowledge, quick to assimilate new concepts and ideas and connect ideas
- Use subject specific vocabulary confidently and accurately
- Ask extending/challenging questions. Constantly want to know “why”
- Be creative in their thinking, frequently going beyond the obvious solution to a problem. Prepared to challenge the conventional view
- Able to see both sides of an argument
- Communicate effectively using both the written and spoken word

## Strategies for Success

During Computing, ICT & Digital Media lessons, your son/daughter will be stretched and challenged as much as possible. The emphasis will be to develop the skills identified earlier. This will be done by using a variety of methods and strategies such as:

- Challenging homework tasks
- Stretch and Challenge exam style questions
- Quick quiz every lesson linked to specification
- Python activities and challenges with different solutions
- Lessons pitched at a high level and pace
- Lots of activities and tasks each lesson
- Use of podcasts to encourage independent study and setting independent goals
- Peer teaching
- Driver & Navigator activities
- Data analysis throughout the year- feeding into planning for lessons – printed in colour, MMA and UA identified, linked to OPT and highlighted if off target.
- Use of higher ordering questioning – open questions such as what if and why?
- Use of super-learner activities which develop higher level thinking skills – analysis, synthesis and evaluation
- Develop a classroom culture in which wrong answers are viewed as learning opportunities rather than failure
- Introducing problem solving activities which can be sustained over a number of lessons
- Using the academically able to be leaders of groups
- Using target setting strategies to encourage ambitious work by the most able

## Challenges for UA in Computing and how to overcome these

| Challenge   | Overcome  |
|---|---|
| Develop the correct exam technique to show high level analysis and evaluation   | Use of exemplar material and answers to show what a grade 9/A looks like. Students will be given copies of such work  |
| Develop successful exam preparation techniques (learning the content and exam practice) to allow students to reach high levels of attainment. | Completion of past papers, revision out of lesson time, learning checks after the completion of units of work, Sticky Learning tasks to link Year 9 and 10 work with Year 11. |

## How can Parents help?

Below are a few suggestions where you might be able to help:

- Support with revision (from Pearson text book, podcasts on Moodle, zig zag resources)
- Download python on home computer
- Support with homework
- Use Moodle to discuss work, check progress and look at feedback  
[www.woodmood.org/Moodle27](http://www.woodmood.org/Moodle27)

Please use the following websites to help support your son/daughter:

### GCSE revisions sites;

<http://www.bbc.co.uk/schools/gcsebitesize/ict/>

<http://www.teach-ict.com/gcsehome.html>

<http://www.reviseict.co.uk/revision/quizchallenge.shtml>

<http://revisionworld.co.uk/gcse-revision/ict>

<http://www.codeavengers.com/>

<http://appshed.com/>

<http://www.codeacademy.com/>