

WMG
Academy for Young 
engineers

YEAR 12

CURRICULUM BOOKLET

2018/2019



Introduction from Mr M Brady

We are very pleased to welcome your child to WMG Academy and are delighted that they have chosen to complete their sixth form study with us. We recognise that our students will be the most successful they can if they continue to be supported by their parents throughout year 12 and 13. To that end, this guide has been produced for you as a comprehensive and helpful resource over the next two years. Should you wish to find out anything more, please feel free to contact our Head of Sixth Form, Jason Young.

Your support is greatly appreciated.

Best wishes

A handwritten signature in black ink, appearing to read 'Matt Brady', with a stylized flourish at the end.

Matt Brady
Associate Principal

Dates, Reporting and Parents Evenings

Term Dates

Autumn Term

Academy opens for Autumn Term – YR12:	Thursday 6 September 2018
Academy closes for Half Term:	Friday 19 October 2018
Academy opens for Half Term:	Monday 29 October 2018
Academy closes for Autumn Term:	Friday 21 December 2018

Spring Term

Academy opens for Spring Term:	Monday 7 January 2019
Academy closes for Half Term:	Friday 15 February 2019
Academy opens for Half Term:	Monday 25 February 2019
Academy closes for Spring Term:	Friday 12 April 2019

Summer Term

Academy opens for Summer Term:	Monday 29 April 2019
Academy closes for Half Term:	Friday 24 May 2019
Academy opens for Half Term:	Monday 3 June 2019
Academy closes for Summer Term:	Friday 19 July 2019

Staff Training Days 2018/2019

Monday 3 September 2018
Friday 16 November 2018
Friday 1 February 2019
Friday 5 April 2019
Monday 22 July 2019

School Day

Monday and Friday

Period 1	8.30 – 9.25
Period 2	9.25 – 10.20
Break	10.20 – 10.45
Period 3	10.45 – 11.40
Period 4	11.45 – 12.35
Period 5	12.35 – 13.30
Lunch	13.30 – 14.05
Period 6	14.05 – 14.25 - Mentoring
Period 7	14.25 – 15.20

Tuesday to Thursday

Period 1	8.30 – 9.25
Period 2	9.25 – 10.20
Break	10.20 – 10.45
Period 3	10.45 – 11.40
Period 4	11.45 – 12.35
Period 5	12.35 – 13.30
Lunch	13.30 – 14.05
Period 6	14.05 – 14.25 - Mentoring
Period 7	14.25 – 15.20
Period 8	15.20 – 16.30

Key Dates

Parents Evening

- Settling in parents evening with tutors
- Year 12 Parents Evening

Monday 15th October 2018

Monday 18th March 2019

Mock Examinations

- Week commencing:

Monday 1st July 2019

Reporting – Key Assessments

- KA1 Progress review
- KA2 Progress review
- KA3 Progress review
- KA4 Progress review
- KA5 Progress review
- KA6 Progress review

Thursday 15th November 2018

Thursday 20th December 2018

Thursday 14th February 2019

Thursday 11th April 2019

Thursday 23rd May 2019

Thursday 18th July 2019

Explaining your child's report

When you receive a Progress Review or Report from the Academy, it will contain the following information:

Targets

This grade is an expected outcome at the end of Year 13. It is aspirational in nature and is therefore a challenging goal to achieve. We use ALPS, a nationally recognised (and largest) targeting system to calculate this grade based on performance at GCSE results to arrive at the target grade.

WAG (Working at Grade)

This grade is based on the overall level subject teachers believe your child is currently working at. Subject teachers make their grade assessment here based on the evidence they have seen so far in the course.

ATL (Attitude to Learning)

6	Excellent
5	Very Good
4	Good
3	Requires Improvement
2	Unsatisfactory
1	Inadequate

Concern Codes

BEH	you are concerned about the learner's behaviour
ENG	you are concerned about the learner's engagement
ATT	you are concerned about the learner's attendance
CLA	you are concerned about the learner's classwork
HOM	you are concerned about the learner's homework
CDM	you are concerned that the learner has missed coursework deadlines

In addition, once a year, you will receive a full written report about your child's progress in each subject area from their teaching staff.

At each key assessment point, each sixth form tutor will receive a copy of the tutor group's reports. They will use these reports to help have meaningful conversations with students who are:

- Not making the required progress
- Have poor attendance
- Have a poor attitude to learning

Members of Staff

Senior Leadership Team

Mrs Kate Tague	Executive Principal
Mr Matt Brady	Associate Principal
Mrs Diane Campton	Director of Finance
Mrs Caroline Hickman	Director of Inclusion
Mr Jason Young	Assistant Principal

Extended Senior Leadership Team

Mr Andrew Kyprianou	Lead Teacher of Engineering
Mr Rob Grute	Lead Teacher for Mathematics and Computer Science
Mrs Erin Riordan-Jarvis	Lead Teacher of Science and E-Bacc Subjects
Mrs Gaynor Thompson	Lead Teacher for English and Whole School Literacy

Trust Staff

Mr Graham Jacklin	IT & Facilities Manager
Mrs Calista Lewis	Marketing Manager
Mrs Sarah Rhodes	MIS and Data Manager
Ms Catherine Burns	Careers Advisor
Mrs Amanda Reddington	Trust Pastoral Counsellor

Teaching Staff

Mr Audley Allen	Teacher of Science
Mr Nick Baldwin	Teacher of Design/Engineering
Ms Debbie Brown	Teacher of Science
Mrs Gillian Cranmer	Teacher of French
Mr David Crosbie	Teacher of Geography
Miss Edyta Dzikon	Teacher of Engineering
Miss Rosie Fawcett	Teacher of English
Mrs Philippa Foord	Teacher of Science
Mr Ian Jones	Teacher of Computer Science
Miss Sinead Kavanagh Kenney	Teacher of English
Ms Jane Kinsella	Teacher of German
Miss Petra Lavric	Teacher of Mathematics
Dr Danielle Lloyd	Teacher of Science
Mrs Manjit Marway	Teacher of Business
Miss Lisa McBride	Teacher of English
Ms Claire Nicoll	Teacher of Art & Design
Mr Adam Parry	Teacher of Engineering
Ms Leanne Riley	Teacher of Engineering
Mrs Geraldine Spelman	Teacher of Computer Science
Mr Paul Spence	Teacher of Engineering
Mr Dominic Vipond	Teacher of Maths
Mr Joseph Watson	Teacher of Engineering

Learning Support Staff

Mrs Cheryl Badham	Behaviour & Pastoral Lead
Mrs Alexandra Santos	Learning Support Assistant
Miss Claire Thistlethwaite	Learning Support Assistant
Miss Louise Darlington	Cover Supervisor

Operational Staff

Mrs Laura Beeston	Finance Administrator
Mrs Michelle Dunckley	Admissions and Exams Officer
Mr Ethan Harries	Curriculum Support Administrator
Mrs Caroline Murley	Finance Administrator
Mrs Marie Parekh	Receptionist/Clerical Assistant
Mrs Natalie Harris	Receptionist/Clerical Assistant
Ms Julie Thomson	Science Technician
Ms Claire Weatherall	Office Manager

Pastoral Guidance

Your son/daughter has been allocated to a dedicated year 12 tutor group. The supporting tutor is best placed to answer any initial queries you may have and these should be the first point of contact for your son/daughter

Tutors

12.1 – Sinead Kavanagh Kenney & Jane Kinsella

12.2 – Edyta Dzikon & Adam Parry

12.3 – Petra Lavric & Gillian Cranmer

12.4 – Leanne Riley

The above tutors have been chosen to specifically reflect the different needs of Sixth form students. Tutors are responsible for the pastoral care of each member of the tutor Group. In more detail, this will mean:

- Discussing and agreeing appropriate career and study choices with each mentee
- Writing their personal reference
- Assisting mentees in completion of personal statement and UCAS Applications
- Reviewing the progress of UCAS applications
- Reviewing each mentee's progress half-termly
- Reviewing attendance and punctuality of mentees
- Identifying where additional support may be needed
- Providing pastoral care in line with half-termly Year 13 themes
- Seeking opportunities to encourage each student to develop

A-Level Mathematics

Exam Board	Edexcel
Syllabus Name	A Level Mathematics
Syllabus Code	9MA0
QAN Code	6031333X
Do you do Controlled Assessment / Coursework / Practical	This is an examination only course
When will the exam be?	Summer 2019
What should a student do before each lesson?	<ul style="list-style-type: none"> ● Ensure all homework set on google classroom has been completed, and a suitable amount of independent practice work undertaken. ● Look back over notes from previous lessons, and make sure work has been caught up if lessons have been missed.
What should a student do during each lesson?	<ul style="list-style-type: none"> ● Listen carefully to teaching and instructions from the teacher. ● Ask questions whenever you're unsure or stuck on a problem. ● Complete work to the very best of your ability. The only way to learn maths is to do maths. Lots of it!
What should a student do after each lesson?	<ul style="list-style-type: none"> ● Check that you have understood the key concepts of the lesson. ● Ask your teacher if you had any questions you didn't ask in class. ● Write revision notes on the topics covered.
How should I use my revision guide	<ul style="list-style-type: none"> ● In conjunction with past papers and exam style questions. See the section on using past papers below.
Where can I go to download past papers?	<ul style="list-style-type: none"> ● Past papers are not available for this course, as it is brand new this year, but sample assessments can be found at qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html, and further exam style questions can be found at www.examsolutions.net/a-level-maths/edexcel/
What is the best way to use past papers	<ul style="list-style-type: none"> ● The best way to use sample or practice papers is to complete and mark one paper, using the mark scheme, then identify one or two topics you've not done well on, revise topics using a revision guide or website, complete some questions on those topics (from a revision workbook or sets of exam questions from a website such as www.examsolutions.net). Then try another paper.

Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	<p>Revision guides for the new specification are due to become available from November 2017.</p> <p>Small group intervention groups are planned for selected students.</p>
What are the best revision sources? Can I purchase	<p>Revision guides (when available), students own notes, and sets of exam style questions on a particular topic; available from sites like www.examsolutions.net</p>
How can I support my child?	<ul style="list-style-type: none"> ● Encourage them to begin practicing exam style questions <u>early</u>, either by completing sections of a revision workbook, practice papers or specimen papers. ● Getting them to show you their notes regularly, and encouraging them to keep them organised. ● Guiding them on the writing and use of revision notes/cards. ● Having someone available out of school (a friend or relative) who they can get help from quickly when they get stuck is very effective. ● Having a laptop or tablet in lessons will help enormously, as many mathematical concepts can be reinforced using software such as graphing packages like desmos or autograph, and part of the course involves the use of a large data set which can only be manipulated efficiently using a spreadsheet. A scientific or graphical calculator is absolutely essential.
My child likes to revise using digital media – where should they go?	<ul style="list-style-type: none"> ● Youtube videos (Hegarty Maths is especially recommended, although currently still organised by old specification module codes) ● Gojimo app (Free) ● www.mymaths.co.uk ● www.examsolutions.net

A-Level Further Maths

Exam Board	Edexcel
Syllabus Name	A Level Further Mathematics
Syllabus Code	9FM0
QAN Code	60314990
Do you do Controlled Assessment / Coursework / Practical	This is an examination only course
When will the exam be?	Summer 2020
What should a student do before each lesson?	<ul style="list-style-type: none"> ● Ensure all homework set on google classroom has been completed, and a suitable amount of independent practice work undertaken. ● Look back over notes from previous lessons, and make sure work has been caught up if lessons have been missed.
What should a student do during each lesson?	<ul style="list-style-type: none"> ● Listen carefully to teaching and instructions from the teacher. ● Ask questions whenever you are unsure or stuck on a problem. ● Complete work to the very best of your ability. The only way to learn maths is to do maths. Lots of it!
What should a student do after each lesson?	<ul style="list-style-type: none"> ● Check that you have understood the key concepts of the lesson. ● Ask your teacher if you had any questions, you didn't ask in class. ● Write revision notes on the topics covered.
How should I use my revision guide	<ul style="list-style-type: none"> ● In conjunction with past papers and exam style questions. See the section on using past papers below.
Where can I go to download past papers?	<ul style="list-style-type: none"> ● Past papers are not available for this course, as it is brand new this year, but sample assessments can be found at qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html, and further exam style questions can be found at www.examsolutions.net/a-level-maths/edexcel/
What is the best way to use past papers	<ul style="list-style-type: none"> ● The best way to use sample or practice papers is to complete and mark one paper, using the mark scheme, then identify one or two topics you've not done well on, revise topics using a revision guide or website, complete some questions on those topics (from a revision workbook or sets of exam questions from a website such as www.examsolutions.net). Then try another paper.

Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	Revision guides for the new specification are due to become available from November 2017.
What are the best revision sources? Can I purchase	Revision guides (when available), students own notes, and sets of exam style questions on a particular topic; available from sites like www.examsolutions.net
How can I support my child?	<ul style="list-style-type: none"> ● Encourage them to begin practicing exam style questions <u>early</u>, either by completing sections of a revision workbook, practice papers or specimen papers. ● Getting them to show you their notes regularly, and encouraging them to keep them organised. ● Guiding them on the writing and use of revision notes/cards. ● Having someone available out of school (a friend or relative) who they can get help from quickly when they are stuck is very effective. ● Having a laptop or tablet in lessons will help enormously, as many mathematical concepts can be reinforced using software such as graphing packages like demos or autograph, and part of the course involves the use of a large data set, which can only be manipulated efficiently using a spreadsheet. A scientific or graphical calculator is essential.
My child likes to revise using digital media – where should they go?	<ul style="list-style-type: none"> ● Youtube videos (Hegarty Maths is especially recommended, although currently still organised by old specification module codes) ● Gojimo app (Free) ● www.mymaths.co.uk ● www.examsolutions.net

BTEC Science

Exam Board	Pearson / Edexcel
Syllabus Name	BTEC Level 3 National Diploma in Applied Science
QAN Number	601/7435/3
Do you do Controlled Assessment / Coursework / Practical	<ul style="list-style-type: none"> • There is a range of assessments within the BTEC Science. This includes Controlled Assessment, Coursework and Assessed Practical.
If Yes to the above when will this take place	<ul style="list-style-type: none"> • Unit 1 Principles and Applications of Science 1 - exam Summer 2018 (retake available January 2019) • Unit 2 Practical Scientific Procedures and Techniques - internally assessed (completed Spring 2018) • Unit 3 Science Investigation Skills - externally marked (completed Autumn 2019) • Unit 4 Laboratory Techniques and their Application - internally assessed (completed Autumn 2019) • Unit 5 Principles and Applications of Science 2 - exam Summer 2019 • Unit 6 Investigative Project - internally assessed Spring 2018 • Unit 12 Diseases and Infections - internally assessed Spring 2019 • Unit 21 Medical Physics Applications - internally assessed Autumn 2017)
When will the exam be?	Unit 1 Summer 2019 and Unit 5 Summer 2020
What should a student do before each lesson?	<ul style="list-style-type: none"> • Ensure they have read through material from previous lessons and are happy with it • Ensure that they are up to date with all their assignments
What should a student do during each lesson?	<ul style="list-style-type: none"> • Take notes • Ask questions whenever needed • Complete all practice questions • Ensure they have any relevant assignment documents
What should a student do after each lesson?	<ul style="list-style-type: none"> • Read back through notes and the textbook • Complete HW and relevant practice questions • Complete all assignments by the deadlines as if these are not completed you will be unable to achieve the qualification
How should I use my revision guide	<ul style="list-style-type: none"> • To revise for Unit 1 exam in Summer 2019
Where can I go to download past papers?	<ul style="list-style-type: none"> • Search Pearson BTEC Applied Science past papers
What is the best way to use past papers	<ul style="list-style-type: none"> • Many provided in lessons, else in advance of mocks etc.

Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	If required.
What are the best revision sources? Can I purchase	<ul style="list-style-type: none"> • Notes, textbook, exam questions. • We don't recommend a revision guide.
How can I support my child?	<ul style="list-style-type: none"> • Using google classroom and discussion with students, ensuring they are on track to meet assignment deadlines
My child likes to revise using digital media – where should they go?	<ul style="list-style-type: none"> • Each assignment brief will have suggested links for research attached

<u>Unit No</u>	<u>Unit Name</u>	<u>Internal / External</u>	<u>Date of Examination / Coursework Completion</u>
1	Principles and Applications of Science I	External	21/5/19 and 22/5/19
2	Practical Scientific Procedures and Techniques	Internal	April 2019
3	Science Investigation Skills	External	January 2020
4	Laboratory Techniques and their Application	Internal	May 2020
5	Principles and Applications of Science II	External	January 2020
6	Investigative Project	Internal	May 2019
12	Diseases and Infections	Internal	May 2020
21	Medical Physics Applications	Internal	December 2018

A-Level Chemistry

Exam Board	AQA
Syllabus Name	Chemistry
Syllabus Code	7405
QAN Number	601/5731/8
Do you do Controlled Assessment / Coursework / Practical	There are assessed practicals within this course
If Yes to the above when will this take place	Practical will take place Summer 2019
When will the exam be?	Summer 2020
Extra Guidance for Parents	
What should a student do before each lesson?	<ul style="list-style-type: none"> ● Ensure they have read through material from previous lessons and are happy with it. ●
What should a student do during each lesson?	<ul style="list-style-type: none"> ● Take notes ● Ask questions whenever needed ● Complete all practice questions
What should a student do after each lesson?	<ul style="list-style-type: none"> ● Read back through notes and the textbook ● Complete HW and relevant practice questions
How should I use my revision guide	<ul style="list-style-type: none"> ● As above
Where can I go to download past papers?	<ul style="list-style-type: none"> ● Search AQA Chemistry 7405
What is the best way to use past papers	<ul style="list-style-type: none"> ● Many provided in lessons, else in advance of mocks etc
Extra Guidance for Parents	
What are the best revision sources? Can I purchase	Notes, textbook, exam questions. We do not recommend a revision guide.
How can I support my child?	<ul style="list-style-type: none"> ● Using google classroom for homework and discussion with students.
My child likes to revise using digital media – where should they go?	<ul style="list-style-type: none"> ● Allery Chem youtube channel ● Chemrevise ● Physics and maths tutor

A-Level Physics

Exam Board	AQA
Syllabus Name	Physics
Syllabus Code	7408
QAN Number	601/4747/7
Do you do Controlled Assessment / Coursework / Practical	There are assessed practicals within this course
When will the exam be?	Summer 2020
Extra Guidance for Parents	
What should a student do before each lesson?	<ul style="list-style-type: none"> ● Ensure they have read through material from previous lessons and are happy with it
What should a student do during each lesson?	<ul style="list-style-type: none"> ● Take notes ● Ask questions whenever needed ● Complete all practice questions
What should a student do after each lesson?	<ul style="list-style-type: none"> ● Read back through notes and the textbook ● Complete HW and relevant practice questions. ●
How should I use my revision guide	<ul style="list-style-type: none"> ● As above
Where can I go to download past papers?	<ul style="list-style-type: none"> ● Search AQA Physics 7408 or use maths and physics tutor
What is the best way to use past papers	<ul style="list-style-type: none"> ● Many provided in lessons, else in advance of mocks etc.
Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	There is likely to be a period 8 intervention class, timetable pending.
What are the best revision sources? Can I purchase	Notes, textbook, exam questions. We do not recommend a revision guide.
How can I support my child?	<ul style="list-style-type: none"> ● Using google classroom for homework and discussion with students.
My child likes to revise using digital media – where should they go?	<ul style="list-style-type: none"> ● Physics and maths tutor ● Antonine physics

A-Level Business

Exam Board	OCR
Syllabus Name	OCR A Level Business
Syllabus Code	H431
QAN NUMBER	601/4675/8
Do you do Controlled Assessment / Coursework / Practical	No.
If Yes to the above when will this take place	-
When will the exam be?	Summer 2020
What should a student do before each lesson?	
	Before each lesson, students should read over the topics from the previous lesson to ensure they have a thorough understanding of the topic. Using the lesson PowerPoints that are available on RM Unify will be vital to supporting this, and these can be accessed from anywhere. As an added extra, it is always good for a student to reading around current Business contexts, utilising the BBC news website is a good starting point.
What should a student do during each lesson?	
	A student should take part in all tasks, and if not clear should always ask for assistance. Part of being successful in Business is asking questions and exploring a topic, so students should actively try and link topics to current Business contexts.
What should a student do after each lesson?	
	After each lesson a student should be reading over the work that was done in the lessons to extend and enhance their understanding, they should also prepare a list of questions about topics they have not understood ready for the next lesson. In addition, completing all the homework tasks set will be vital to the students being successful in the Business qualification.
How should I use my revision guide	
	After each lesson, go back and recap the topic from that lesson and the previous lesson to keep abreast of revision consistently. Once a half term a student should look back through all the lessons done that half term to recap all work.
Where can I go to download past papers?	
	https://www.ocr.org.uk/qualifications/as-a-level-gce/business
What is the best way to use past papers	
	There are limited past papers available, but these should be used for self-assessment along with the mark schemes, and will be used during in class and mock assessments.
Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	
	All lessons are placed on RM Unify for students to access from wherever is best for them. A textbook will be able to purchase through parent pay and close to the exams, additional revision sessions will be put on to help and support students.

<p>What are the best revision sources? Can I purchase</p>	<p>Tutor2u http://www.tutor2u.net/business/topics</p>
<p>How can I support my child?</p>	<p>The best way to support your child with Business is to ask them questions regarding what is in the news, and getting them to link this back to the topics done in the lesson. Further to this, asking them revision questions periodically using their exercise book will be of great assistance in helping to recall knowledge.</p>
<p>My child likes to revise using digital media – where should they go?</p>	<p>Tutor2u http://www.tutor2u.net/business/topics</p> <p>BEEBUSINESSBEE http://www.beebusinessbee.co.uk/index.php/business-topics</p>

A-Level Economics

Exam Board	Edexcel
Syllabus Name	(A-Level) Edexcel Advanced GCE in Economics A
Syllabus Code	9ECO
QAN NUMBER	601/4105/0
Do you do Controlled Assessment / Coursework / Practical	No.
If Yes to the above when will this take place	-
When will the exam be?	Summer 2020
What should a student do before each lesson?	
What should a student do before each lesson?	Before each lesson, students should read over the topics from the previous lesson to ensure they have a thorough understanding of the topic. It is important that students are able to memorise key definitions, terms, formula and diagrams. Time should be dedicated to revising these so that when used in lessons, they are confident on the knowledge and can apply to concepts.
What should a student do during each lesson?	A student should take part in all tasks, and if not clear should always ask for assistance. It is helpful if students engage in discussions, ask questions and challenge thinking. They need to try and accurately apply the theory to a given context, so making use of notes and past work is important. They should always bring past notes with them.
What should a student do after each lesson?	After each lesson a student should be reading over the work that was done in the lessons to extend and enhance their understanding, they should also prepare a list of questions about topics they have not understood ready for the next lesson. In addition, completing all the homework tasks set will be vital to the students being successful in the Economics qualification.
How should I use my revision guide	After each lesson, go back and recap the topic from that lesson and the previous lesson to keep abreast of revision consistently. Once a half term a student should look back through all the lessons done that half term to recap all work.
Where can I go to download past papers?	https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/economics-a-2015.html
What is the best way to use past papers	There are a number past papers available, these should be used for self-assessment along with the mark schemes, and will be used during in class and mock assessments.
Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	Revision materials will be given to students throughout the year as different topics are completed. Close to the exams, additional revision sessions will be put on to help and support students.

<p>What are the best revision sources? Can I purchase</p>	<p>A textbook will be able to purchase through parent pay.</p> <p>Helpful revision booklets are “Theme 1 -4” by Brendan Casey, available on Amazon for £5 each.</p>
<p>How can I support my child?</p>	
<p>My child likes to revise using digital media – where should they go?</p>	<p>https://www.tutor2u.net/economics</p> <p>http://www.economicsonline.co.uk/</p> <p>Youtube channels – EconPlusDal, AC/DC Economics, Crash Course Economics.</p>

A-Level Computer Science

Exam Board	OCR
Syllabus Name	Computer Science GCE A Level
Syllabus Code	H446
QAN Code	60149115
Do you do Controlled Assessment / Coursework / Practical	This is an examination only course.
When will the exam be?	Summer 2020
What should a student do before each lesson?	<ul style="list-style-type: none"> ● Ensure that they do the homework set. Homework will be explained in lesson and it will be on google classroom. ● If they have missed the previous lesson then make sure that they have caught up.
What should a student do during each lesson?	<ul style="list-style-type: none"> ● Come to lesson on time and do the starter task. ● Do all tasks set to the best of their ability. ● Ask for help when needed. ● With the help of the teacher, develop strategies to become resilient when solving programming problems. ● Have fun!
What should a student do after each lesson?	<ul style="list-style-type: none"> ● Review the lesson presentation and start to build their own revision notes/cards with key words. ● Do wider reading on the topics covered. ● Email the teacher with any questions/concerns.
How should I use my revision guide	<ul style="list-style-type: none"> ● Traffic light the specification identifying areas of strength and potential gaps, use this to prioritise your revision topics.
Where can I go to download past papers?	<ul style="list-style-type: none"> ● http://www.ocr.org.uk/qualifications/as-a-level-gce-computer-science-h046-h446-from-2015/
What is the best way to use past papers	<ul style="list-style-type: none"> ● Your child should attempt past questions and then compare their answers to the mark scheme; they should ask their teacher if the need any help with this.

Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	<ul style="list-style-type: none"> ● Revision materials and links to revision sources will be added to the VLE as we progress through the course.
How can I support my child?	<ul style="list-style-type: none"> ● Encourage them to practise their programming skills. ● Encourage them to learn a new programming language independently using an online tutorial such as Code Academy.
My child likes to revise using digital media – where should they go?	<ul style="list-style-type: none"> ● AS Level videos at https://www.youtube.com/craigndave ● MIT Open Courseware https://www.youtube.com/user/MIT ● Harvard CS50 (YouTube) ● YouTube Automate the boring stuff with Python (link below) ● https://www.youtube.com/watch?v=1F_OgqRuSdl&list=PL0-84-yl1fUnRuXGFe_F7qSH1LEnn9LkW&index=1 ● www.computerscienceuk.com
Any additional information	Your child should download and practise Python version 3 from www.python.org/downloads

A-Level Product Design

Exam Board	AQA
Syllabus Name	A-level Design and Technology: Product Design
Syllabus Code	7552
QAN Number	A-level 603/1133/2
Do you do Controlled Assessment / Coursework / Practical	This course has controlled assessment, coursework and practical within it.
If Yes to the above when will this take place	Academic year 2018/2020
When will the exam be?	Summer 2020
Extra Guidance for Parents	
What should a student do before each lesson?	<ul style="list-style-type: none"> ● Ensure they have read through material from previous lessons. ● Arrive to lesson punctually ● Bring the correct equipment to each lesson.
What should a student do during each lesson?	<ul style="list-style-type: none"> ● Always listen to the member of staff. ● Ask questions whenever needed
What should a student do after each lesson?	<ul style="list-style-type: none"> ● Complete HW in a timely manner ● Spend 1-2hrs each week, working independently on their coursework.
How should I use my revision guide	<ul style="list-style-type: none"> ● Supporting book available on Parent pay. ● AQA AS/A-Level Design and Technology: Product Design ISBN: 9781510414082
Where can I go to download past papers?	<ul style="list-style-type: none"> ● Search for the qualification title + past papers on google
What is the best way to use past papers	<ul style="list-style-type: none"> ● Complete the past papers independently and compare your answers against the mark scheme.
Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	<ul style="list-style-type: none"> ● Additional support and guidance is available through RM unify.
What are the best revision sources? Can I purchase	<ul style="list-style-type: none"> ● Exemplar coursework portfolios located on Coventry WMGA - VLE. ● AQA course book available through Hodder education.
How can I support my child?	<ul style="list-style-type: none"> ● Using google classroom to monitor homework and deadlines.
My child likes to revise using digital media – where should they go?	<ul style="list-style-type: none"> ● Coventry WMGA - VLE

BTEC Engineering

Exam Board	Pearson
Syllabus Name	BTEC Level 3 National Extended Diploma in Engineering
QAN Number	601/7588/6
Do you do Controlled Assessment / Coursework / Practical	This course has controlled assessment, coursework and practical within it.
If Yes to the above when will this take place	Academic year 2018/2020
When will the exam be?	Summer 2019 and Summer 2020
What should a student do before each lesson?	
	<ul style="list-style-type: none"> ● Ensure they have read through material from previous lessons. ● Arrive to lesson punctually. ● Bring the correct equipment to each lesson.
What should a student do during each lesson?	
	<ul style="list-style-type: none"> ● Always listen to the member of staff. ● Ask questions whenever needed.
What should a student do after each lesson?	
	<ul style="list-style-type: none"> ● Complete H/W in a timely manner. ● Spend 1-2hrs each week, working independently on their coursework.
How should I use my revision guide	
	<ul style="list-style-type: none"> ● Supporting book available on Parent pay. ● Pearson: BTEC level 3 Engineering ISBN: 9781292141008
Where can I go to download past papers?	
	<ul style="list-style-type: none"> ● Search for the qualification title + past papers on google.
What is the best way to use past papers	
	<ul style="list-style-type: none"> ● Complete the past papers independently and compare your answers against the mark scheme.
Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	
	<ul style="list-style-type: none"> ● Additional support and guidance is available through google classroom and Coventry WMGA – VLE.
What are the best revision sources? Can I purchase	
	<ul style="list-style-type: none"> ● Exemplar coursework portfolios located on Coventry WMGA - VLE .
How can I support my child?	
	<ul style="list-style-type: none"> ● Using google classroom to monitor homework and deadlines.
My child likes to revise using digital media – where should they go?	
	<ul style="list-style-type: none"> ● Coventry WMGA - VLE

<u>Unit No</u>	<u>Unit Name</u>	<u>Internal / External</u>	<u>Date of Examination / Coursework Completion</u>
Unit 1	Engineering Principles	External	June 2019
Unit 2	Delivery of Engineering Processes Safely as a Team	Internal	Spring 2019
Unit 3	Engineering Product Design and Manufacture	External	April – May 2019
Unit 4	Applied Commercial and Quality Principles in Engineering	Internal	Spring 2020
Unit 5	A Specialist Engineering Project	Internal	Spring 2020
Unit 6	Microcontroller Systems for Engineers	External	Summer 2019
Unit 7	Calculus to Solve Engineering Problems	Internal	Autumn 2020
Unit 10	Computer Aided Design in Engineering	Internal	Autumn 2020
Unit 13	Welding Technology	Internal	Spring 2020
Unit 22	Electronic Printed Circuit Board Design and Manufacture	Internal	Spring 2019
Unit 24	Maintenance of Mechanical Systems	Internal	Autumn 2019
Unit 25	Mechanical Behaviour of Metallic Materials	Internal	Autumn 2018
Unit 44	Fabrication Manufacturing Processes	Internal	Autumn 2018
Unit 45	Additive Manufacturing Processes	Internal	Autumn 2019
Unit 19	Electronic Devices and Circuits	internal	Spring 2019

GCSE English Re-Sit

Exam Board	AQA
Syllabus Name	GCSE English Language
Syllabus Code	8700
QAN Number	601/4292/3
Do you do Controlled Assessment / Coursework / Practical	<ul style="list-style-type: none"> One spoken language endorsement Giving you a Pass / Merit / Distinction
If Yes to the above when will this take place	October 2018
When will the exam be?	November 2018 or June 2019 (2 nd resit opportunity)
Date	Paper 1 - 5 th November 2018 Paper 2 - 7 th November 2018
What should a student do before each lesson?	<ul style="list-style-type: none"> Revisit their lesson notes and revision checklist Bring completed homework – two weekly examination paper will be set – one for each exam paper Read a wide range of texts for pleasure to improve vocabulary and understanding.
What should a student do during each lesson?	<ul style="list-style-type: none"> Engage immediately with starter activity Participate by asking and answering questions Aim to improve your skills in every lesson
What should a student do after each lesson?	<ul style="list-style-type: none"> Review your notes and revision checklists Complete the two weekly exam paper to the best of your ability, continually revisiting last week's work to ensure improvement. Watch Mr Bruff videos about the questions which are most challenging
How should I use my revision guide	<ul style="list-style-type: none"> During each unit to consolidate learning at the end of a unit to revise key aspects As you complete exam papers, refer to the notes on each questions.
Where can I go to download past papers?	<ul style="list-style-type: none"> AQA website http://www.aqa.org.uk/subjects/english/gcse/english-language-8700/assessment-resources
What is the best way to use past papers	<ul style="list-style-type: none"> To practise exam style answers once confident with basic skills taught in lessons

	<ul style="list-style-type: none"> ● Use them frequently and improve previous answers to increase your mark
Extra Guidance for Parents	
Do you provide any additional support / Revision Guide?	<ul style="list-style-type: none"> ● Revision materials given to students in lessons ● Please also visit the websites below
What are the best revision sources? Can I purchase	<ul style="list-style-type: none"> ● Study Guides (your notes) ● CGP Revision Guides ● These can be purchased through the academy – details will follow
How can I support my child?	<ul style="list-style-type: none"> ● Encourage to read a variety of fiction and non-fiction texts, newspaper, magazines etc ● Ensure that both weekly exam papers are completed and submitted. ● Support them by ensuring they find some quiet time to complete their revision
My child likes to revise using digital media – where should they go?	<ul style="list-style-type: none"> ● BBC Bitesize https://www.bbc.co.uk/education/examspecs/zcbchv4 ● Mr Bruff – You tube http://mrbruff.com/
Any additional information	All students will be entered for the November 2017 examination. Results will be known in January 2018. If, at that point, a student has not secured a grade 4 (standard pass), students will be entered again for the June 2017 examination.

GCSE Maths Re-Sit

Exam Board	AQA
Syllabus Name	GCSE Mathematics
Syllabus Code	8300
QAN Number	60146084
Do you do Controlled Assessment / Coursework / Practical?	This is an examination only course.
When will the exam be?	November 2018 or Summer 2019
What should a student do before each lesson?	<ul style="list-style-type: none"> ● Ensure all homework set on google classroom has been completed. ● Check that you have a calculator, pen, pencil and ruler (as a minimum). ● Think back to the last lesson topic, and try to remember the key points.
What should a student do during each lesson?	<ul style="list-style-type: none"> ● Listen carefully to teaching and instructions from the teacher. ● Ask questions whenever you're unsure or stuck on a problem. ● Complete work to the very best of your ability. The only way to learn maths is to do maths. Lots of it!
What should a student do after each lesson?	<ul style="list-style-type: none"> ● Check that you've understood the key concepts of the lesson. ● Ask your teacher if you had any questions you didn't ask in class. ● Write revision notes on the topics covered.
How should I use my revision guide?	<ul style="list-style-type: none"> ● In conjunction with past papers and exam style questions. See the section on using past papers below.
Where can I go to download past papers?	<ul style="list-style-type: none"> ● There aren't any past papers publicly available yet as it's a very new qualification, but specimen papers can be found by going to www.aqa.org.uk/exams-administration/exams-guidance/find-past-papers-and-mark-schemes and filtering for Maths GCSE 8300. ● Practice papers will also be added to the school vle as they become available, and old specification papers can be found by using the link above and filtering by Maths GCSE 4365. These papers are still appropriate for practice, but grade boundaries are no longer representative.

<p>What is the best way to use past papers?</p>	<ul style="list-style-type: none"> • Complete and mark one paper, using the mark scheme. Identify one or two topics you've not done well on, revise topics using a revision guide or website, complete some questions on those topics (from a revision workbook or sets of exam questions from a website such as www.mathedup.co.uk/gcse-maths-takeaway). Then try another past paper.
<p>Extra Guidance for Parents</p>	
<p>Do you provide any additional support / Revision Guide?</p>	<p>The recommended revision guide is the Collins GCSE Maths Higher All-in-One Revision and Practice book by Collins (ISBN 9780008112509 for Higher tier, 9780008112516 for Foundation). These are available from Amazon for around £8.</p>
<p>What are the best revision sources? Can I purchase?</p>	<p>Revision guides, past papers and sets of exam style questions on a particular topic; available from sites like www.mathedup.co.uk/gcse-maths-takeaway</p>
<p>How can I support my child?</p>	<ul style="list-style-type: none"> • Encourage them to begin practicing exam style questions <u>early</u>, either by completing sections of a revision workbook, past papers, practice papers or specimen papers. • Having someone available out of school (a friend or relative) who they can get help from quickly when they get stuck is very effective. • Ensure they have a working, scientific calculator (and other essential mathematical equipment) for use in every maths lesson (currently every day from Monday to Thursday).
<p>My child likes to revise using digital media – where should they go?</p>	<ul style="list-style-type: none"> • BBC bitesize • Youtube videos (Corbett Maths and Heggarty Maths are both highly recommended) • Gojimo app (Free) • www.mymaths.co.uk • www.mrbartonmaths.com/students/gcse/

Non-qualification curriculum:

Duke of York's Award

The Duke of York Award for Technical Education acknowledges the success of young people choosing technical education and encourages wider support from parents, businesses and other stakeholders.

Open to students at UTCs, the Duke of York Award recognises a combination of qualifications, work experience placements and the development of wider competencies required in the workplace such as communication skills and problem solving. For many students it is the first step towards becoming Registered Technicians.

All Sixth form students will study towards the Duke of York's award. They will begin the process of collecting their evidence after October half term and this will go towards the final submission and interviews in April. All students eligible will go for the Gold Award:

- Have completed a two-year programme of learning which emphasises practical and applied forms of learning, including strong links with employers and
- Have been awarded at least:
 - Level 3 Technical Level or Applied General Qualification equivalent in size to three A Levels or
 - Level 3 Technical Level or Applied General Qualification equivalent in size to two A Levels and a full A Level or
 - Three full A Levels, at least two of which must be in science, engineering or technology
- Have been awarded at least:
 - What they have learned as a result of taking part in team projects
 - How they tackled a problem during a team project
 - Have made a formal presentation to an adult audience
 - Have completed at least two weeks' work experience, either as a single block or spread over a longer period
 - Have clear plans for what they will do next and can describe the options and careers open to them in future.

Companies involved with WMG Academy

Business Partner Engagement

As a University Technical College, we commit to the principle that engineering is best taught in partnership between teachers at the academy and professional engineers from industry. The way in which this is done will vary, from company visits to academy-based seminars and from special projects to employer-led presentations.

What follows is a an overview of the companies we have worked with over the last three years and those organisations who have made commitments to improving student outcomes over the coming academic year. We've included names of engineers as well as a short history of involvement to illustrate how individual projects have unfolded, however this changes every year and we expect to see new styles of commitment and delivery over the next twelve months.

If of course you have any questions about the extent to which our business partners engage with us, or if you feel that that business partner engagement can be improved or developed in any way, please speak to either Mr Brady or Mr Kyprianou.

Please bear in mind the following approaches to business engagement whilst at the academy.

- Every time an employee of a business partner is in the academy, you have an opportunity to impress them with your personal appearance, enthusiasm and interest. Some of our most successful degree apprenticeship applicants made themselves visible to our partners very early during their time with us - it can work for you too.
- Key signs of successful engagement with business partners include punctuality to presentations and seminars and the confidence to ask questions - don't be shy and work with us if you want us to support you in self-confidence.
- Our business partners lead us in our curriculum and approach to business behaviours. Please feel free to ask them about their approach to learning and successful behaviours in their business.

	<p>ENGINEERING BRANCH:</p> <p>AERONAUTICAL ENGINEERING</p>
<p>Headquartered in the UK, Meggitt PLC is a global engineering group specialising in extreme environment components and smart sub-systems for aerospace, defence and energy markets.</p> <p>Some 11,000 people are employed across manufacturing facilities in Asia, Europe and North America and regional bases in Brazil, India and the Middle East.</p> <p>Meggitt’s civil aerospace presence covers large commercial transports, regional aircraft, business jets, helicopters and general aviation.</p> <p>Its defence markets cover all military aircraft types, land systems, naval platforms and aerial, land-based and marine threat simulation training and weapons systems development. The firearms element of this capability extends into law enforcement and security organisations.</p> <p>The group’s growing presence in energy is driven by our core fluid controls, heat management and sensing and monitoring capabilities, many of which are deployed to help reduce the maintenance costs, fuel consumption and carbon emissions of industrial gas and steam turbines.</p>	
<p><u>Academy Involvement</u></p> <p>Meggitt’s have been involved since their first Year 12 interactive day in December 2016. The company plans to take on apprentices from the academy and give an insight into working in the braking systems/aeronautical field.</p>	

 	<p>ENGINEERING BRANCH:</p> <p>AUTOMOTIVE / MECHANICAL ENGINEERING</p>
<p>Jaguar Land Rover Automotive PLC is the holding company of Jaguar Land Rover Limited, a British multinational automotive company with its headquarters in Whitley, Coventry, United Kingdom, and a subsidiary of Indian automaker Tata Motors. The principal activity of Jaguar Land Rover Limited is the design, development, manufacture and sale of vehicles bearing the Jaguar and Land Rover marques. Both marques have long and complex histories prior to their merger, going back to the 1940s, first coming together in 1968 as part of the ill-fated British Leyland conglomerate; and later existed independently of each other as subsidiaries of BMW, and Ford Motor Company; Ford later acquired Land Rover from BMW in 2000 following the break-up of the former Rover Group; which was effectively the remainder of British Leyland.</p>	
<p><u>Academy Involvement</u></p> <p>Jo Lopes (Head of Technical Excellence) at Jaguar Land Rover is WMGA Coventry’s Chair of Governors and a proud supporter of UTCs. The company has supported commission in engineering design as well as instrumentation and control and has taken on both advanced and degree apprentices from the academy.</p>	



Rolls-Royce

ENGINEERING BRANCH:

AERONAUTICAL ENGINEERING

About Rolls-Royce

Rolls-Royce is a pre-eminent engineering company focused on world-class power and propulsion systems.

The Rolls-Royce Group is organised into five customer-facing businesses: Civil Aerospace, Defence Aerospace, Power Systems, Marine and Nuclear.

What we do

We are one of the world's leading producers of aero engines for large civil aircraft and corporate jets. We are the second largest provider of defence aero engines in the world. Rolls-Royce is well established in the marine sector where we design vessels and integrate power systems. We have a growing presence in civil nuclear power, drawing on our skills and experience of over 50 years in powering nuclear submarines. Our MTU brand is world-renowned in high-speed diesel engines powering applications as diverse as rail locomotives and luxury yachts.

We support our customers through a worldwide network of offices, manufacturing and service facilities.

Vision: 'better power for a changing world'

Academy Involvement

The Chair of Governors at WMGA Solihull (Stuart Baker) is a director at Rolls Royce and has driven the company involvement since our first module in manufacturing for Y12 BTEC in 2014. The company is committed to growing its profile locally and across all UTCs,



ENGINEERING BRANCH:

AUTOMOTIVE ENGINEERING

Squires Gear and Engineering Ltd has been established as the market leader in its field since 1985, specialising in suspension, braking, steering components and various fasteners.

An ISO/TS 16949 Reg Co supplying worldwide for over 25 years, Squires has developed the skills and expertise to keep one step ahead of the competition.

From product design and development, bespoke components through to high volume production, Squires Gear meet your requirements with Quality, Value and Delivery being our main priority.

Apart from braking and suspension components, we produce a wide array of other products.

Academy Involvement

Squires Gears have been involved since their first Y12 interactive day in December 2016. The company plans to take on apprentices from the academy and give an insight into working in the braking systems/aeronautical field.

 <p>the autins group</p>	<p>ENGINEERING BRANCH:</p> <p>MATERIALS / AUTOMOTIVE ENGINEERING</p>
<p>The Autins Group combines around 50 years of manufacturing experience with state-of-the art technology. Set up in 1966 as Automotive Insulations, the company became well known within the automotive sector for manufacturing parts for the original Mini. From these origins supplying the car industry, we have built a solid reputation for developing heat and sound solutions across a range sectors, including automotive, marine commercial and industrial.</p> <p>As a company we have grown rapidly over the past few years and are moving into new sectors such as interior design and construction.</p> <p>Our portfolio of clients includes some highly respected global brands including Bentley, Jaguar Land Rover, Honda and VW Group.</p>	
<p><u>Academy Involvement</u></p> <p>The Autins group involvement in the academy dates back to our inception. Former CEO Jim Griffin and HR Director Liz Northwood, Governor at WMG Solihull have provided the inspiration and were the first company to take on an apprentice in our first few months of operation, seconded to Toyota Motors in Derby. Autins help the academy with a variety of HR and commission inputs.</p>	

	<p>ENGINEERING BRANCH:</p> <p>ELECTRICAL ENGINEERING</p>
<p>Our business model</p> <p>We are an international electricity and gas company based in the UK and north eastern US. We play a vital role in connecting millions of people safely, reliably and efficiently to the energy they use.</p> <p>We are at the heart of one of the greatest challenges facing our society – delivering clean energy to support our world long into the future.</p> <p>We work with all our stakeholders to promote the development and implementation of sustainable, innovative and affordable energy solutions.</p> <p>And we are proud that our work, and our people, underpin the prosperity and wellbeing of our customers, communities and investors.</p>	
<p><u>Academy Involvement</u></p> <p>Richard Earp, Governor at WMG Solihull and he and his colleague Luke Fieldhouse have supported the academy to deliver on our business-led ethos. The company have supported the now legendary wind turbine day and have had input into a variety of business and electrical engineering commissions.</p>	

 <p>Sarginsons PIONEERS IN ALUMINIUM DIECASTING</p>	<p>ENGINEERING BRANCH:</p> <p>MATERIALS ENGINEERING</p>
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Sarginsons is the most technically sophisticated aluminum diecaster in the UK

At the forefront of aluminum diecasting for 80 years, we're one of the few European companies to offer low pressure diecasting, sandcasting and gravity diecasting in a single foundry. We pride ourselves on our ability to resolve even the most complex diecasting challenges quickly and cost effectively, so you receive exactly what you need, when you need it.

Our skilled engineers work with you from prototype design through to finished casting to optimise the manufacturing process for your component, production run, time scale and budget.

Academy Involvement

Anthony Evans was the force behind Sarginsons' involvement in the academy. This very special organisation has provided work for our students, inspirational input in our metallurgy programmes and has also provided the opportunities for students to cast their projects and engage in destructive testing.

	<p>ENGINEERING BRANCH:</p> <p>MECHANICAL ENGINEERING</p>
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Cummins Inc.
A Global Power Leader

Cummins Inc. designs, manufactures, sells and services diesel and alternative fuel engines from 2.8 to 95 litres, diesel and alternative-fueled electrical generator sets from 2.5 to 3,500 kW, as well as related components and technology.

The Engine Segment designs and manufactures state-of-the-art diesel and natural gas powered engines for on-highway and off-highway use. The business also offers new parts and remanufactured parts and engines.

Academy Involvement

Cummins have been a partner since our first year of operation and have been vital in supporting our students in engineering design. The company works with mainly KS5 students in engineering design commissions and sets this in a broad general engineering context.



ENGINEERING BRANCH:

CIVIL ENGINEERING

We are Balfour Beatty, a leading infrastructure group operating internationally - engineers, builders, project and facilities managers, analysts, consultants and more.

For more than 100 years we have created and cared for the vital assets that enable societies and economies to grow: road and rail; airports, seaports, tunnels and bridges; health and education facilities; heat, light, power and water; places to live and places to work - the infrastructure that underpins all our lives and drives progress.

From our beginnings in 1909 we have grown to become an international business operating in emerging and mature economies alike. We are one of the few companies with the skills to deliver complex projects of huge scale and take advantage of the growth in long-term infrastructure markets.

Our impact is in iconic structures, bold engineering feats, behind-the-scenes innovation and joined-up thinking - financing and partnerships that make up the world's great infrastructure projects today.

Academy Involvement

Balfour Beatty established their relationship with the company in our third year of operation, providing an opportunity to visit to their operational sites and a chance to promote apprenticeships. They are now a full commission partner and lead our strategy to promote civil engineering at the academy,



ASTON MARTIN

ENGINEERING BRANCH:

AUTOMOTIVE ENGINEERING

POWER. BEAUTY. SOUL.

The very essence of Aston Martin is something you feel each time you look at one of our cars. It sweeps over you on every unforgettable drive. Powerful, exhilarating and precise yet timelessly elegant and sophisticated; our cars blend iconic design, exceptional engineering and unrivalled craftsmanship to create an unforgettable, emotional experience. Each car is the essence of Power, Beauty and Soul.

Aston Martin's state-of-the-art headquarters in Gaydon, Warwickshire is built upon the passion, skill and creativity of the people who dedicate their working lives to the most iconic brand in the world.

Academy Involvement

Karen Botting (HR Director) at Aston Martin has been the inspiration behind the company's involvement with the academy. 30% of the brand's national apprenticeship uptake comes from our Coventry academy and the iconic manufacturer is now a fully-fledged commission partner in design.



BOSCH

ENGINEERING BRANCH:

ELECTRONIC / SYSTEMS ENGINEERING

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,000 associates worldwide (as of December 31, 2017). The company generated sales of 78.1 billion euros in 2017. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life."

<https://www.bosch.co.uk/our-company/bosch-group-worldwide/>

Academy Involvement

Our current contact is Barrie Flemming and is responsible for continued involvement of Bosch within the academy.

Bosch is supporting us in the development of our new GCSE electronics course and have been a partner since 2017.



ENGINEERING BRANCH:

AUTOMOTIVE ENGINEERING

Tata Motors European Technical Centre (TMETC), based in Coventry, is a wholly-owned subsidiary of Tata Motors. Created in 2005, as a UK-based centre of excellence for automotive design and engineering, TMETC provides research and development principally for Tata Motors but also for selected partners in the automotive industry.

TMETC's 250 strong workforce complements Tata Motors' own engineering skill sets and provides international standards in product design, craftsmanship, quality and reliability, and product delivery mainly to the company's passenger and light commercial vehicles. Its facilities in the UK West Midlands include an engineering centre, design studios, and a vehicle test and development workshop.

The company has been an active partner in a number of collaborative projects in low carbon vehicle technology since 2009, notably the TSB supported CABLED programme and the ERDF supported Low Carbon Vehicle Technology Project (LCVTP), and is the centre of excellence for Tata Motors in electric and hybrid vehicle technology for future passenger and light commercial vehicles.

Academy Involvement

Tata Motors have been involved with the academy since 2015 and have provided expertise in every domain, including electrical engineering as well as design and manufacture. The company have provided higher level apprenticeships for our students and act as final project consultants for our BTEC programmes.



ENGINEERING BRANCH:

**AUTOMOTIVE / MATERIALS
ENGINEERING**

Prodrive is a world leading motorsport and technology business. While we are perhaps best known for motorsport, today it is just one part of an organisation, which has diversified to become a technology business working in a range of sectors with operations in Banbury and Milton Keynes in the UK and employing more than 500 staff. Find out more about our company, our culture and our motorsport achievements.

With the innovative technology and techniques used in motorsport, it was a natural progression that Prodrive would offer its engineering skills to the mainstream automotive market and beyond. Today this division represents more than half of the company's sales with more than 100 engineers working on projects for leading vehicles manufacturers, as well as businesses in the aerospace, defence and marine sectors.

We have developed a particular specialism in electro-hydraulic and electro-mechanical actuation systems, the latest electric and flywheel hybrid systems; DC-DC converters for electric cars; as well as the design and manufacture of limited edition performance and luxury cars.

Academy Involvement

Governor Shaun Clayton has been involved in the development of the academy since its inception and takes a keen interest in our business behaviours and vulnerable groups. Prodrive engineers have run seminars for both key stages, including visits to their main facility at Banbury. Apprenticeships have been offered to graduating students and the company is positive about further developments.



ENGINEERING BRANCH:

HIGH VALUE MANUFACTURING

Warwick Manufacturing Group is an academic department of the University of Warwick and has a global reputation in the co-operation of manufacturing companies with high-quality academic research.

Our work with WMG has been varied, with a wide variety of Warwick academic staff delivering lectures to our students on innovative design, manufacturing planning and business development. This support has been crucial in supporting VI form study in particular.

Academy Involvement

It was Professors Jan Godsell and Steve Maggs [Governor at WMG Coventry] who were instrumental in establishing WMG's relationship with its daughter academy. Since 2014, WMG have partnered with the academy, providing inspirational academic tutors from the University of Warwick to develop our design programmes.

