

Teaching and Learning Summary, March 2022

Contents

1. **Summary statement**
2. [Curriculum Intent](#)
3. [Implementation](#)
4. [Impact](#)
5. [Ongoing and future training and developments](#)
6. [Appendix](#) – subject curriculum intent statements

1. **Summary statement**

Teaching and learning across the Academy is good in the vast majority of lessons, hence our judgement that T&L is at least good. The global backdrop of challenges for teaching and learning in schools over the last two years has been keenly felt at WMG, particularly as our students begin their journey with us part way through their education. Despite this, and in the face of these barriers, staff have made excellent progress in developing and accelerating the online learning environment via Google Classrooms, which continues to form the backbone for sharing curriculum resources. A positive outcome of the pandemic has been that we are now able to provide a more robust structure for students consolidating learning outside the academy as well as supporting students who are absent from school due to absence. In September 2021, we provided Chromebooks to all students, and reset a landscape which further enhanced students' access to the curriculum.

Our students begin their WMG journey in Year 10 and Year 12, which means the opportunity to get the whole academy operating 'in sync' is much more compressed and time critical. Since the start of 2022 and the most recent easing of COVID restrictions, we are now able to have face to face assemblies with year groups, which has helped improve the relationships between staff and students, and create a greater sense of shared purpose and ethos, and rebuild lost cultural capital.

Our weekly meetings with student ambassadors have shown a pent-up demand and enthusiasm to drive forward improvements in teaching, learning and extra-curricular activities including multi-cultural festivals and charity events. Students clearly enjoy being part of the academy and astutely identify some of the fragmentation that has been a by-product of the pandemic. They also clearly want to fix this by feeding back and working with us, which is testament to how much they value our community. Our most recent cake sale and charity events to raise money for the Ukraine appeal were a huge success, not only in supporting this cause by raising in excess of £500 but also in bringing students and staff together. Following the success of this event, we went ahead with "Culture Day", which brought students together in a variety of activities including a hugely successful food tasting, supported by staff and parents. Students wore traditional costumes and the energy and enthusiasm generated from that day continues to be a shared memory.

We were able to facilitate two trips for Year 10 students in May. Both trips were well attended and again contributed to creating shared memories and a shared sense of community. These events have helped build relationships between students and staff and have added to the positive atmosphere we strive to promote in our daily interactions.

The teaching staff body comprises around 25% of ECT staff, alongside 8 trainee teachers who have injected much enthusiasm, coaching opportunities and innovative teaching pedagogy. We have in place since September, a highly skilled and experienced coach/mentor for our new teachers, who

follows a structured support and training program which is yielding impressive results. Our ECT coordinator captures, channels and shares this innovation more widely across the Academy. He also mirrors the same role at the Solihull Academy and his ECT support there allows considerable cross fertilisation of ideas that feed into both teaching and learning groups.

Our CPD focus on pedagogy, cognitive load, chunking and sequencing of learning is underway and staff are developing a greater understanding of applying these principles to their lesson planning. Progress is being made in this area, driven and supported at all levels. Curriculum overview plans are in place across all subjects and there is a much greater focus on rational structuring of topics, particularly evident in examination groups following the focus areas published by examination boards in February. This has been evidenced in our learning walks, where teachers are striving to put this into practice and embedding it in the classroom learning routines.

We recognise that it is crucial to support our newer staff to become established (and retained) in the profession and avoid inadvertently overloading them. To this effect, we have renewed our focus on getting the 'ready to learn routines' right in terms of greeting and responding to students, learning objectives, behaviour strategies and restorative conversations. We have reintroduced year group assemblies with learning themes and are resolute in building back a better, more cohesive community. This is having a visible and palpable impact on the atmosphere in classrooms and around the academy at social times.

2. Curriculum intents

The overarching curriculum intent for the academy:

At WMG academy our curriculum intent is to provide a STEM focussed curriculum that prepares students for the world of work, we are business led; as such, we provide a rigorous, expertly sequenced curriculum with engineering and employability at the heart. Alongside the curriculum we have a nurturing pastoral support team providing enrichment and guidance, thoroughly preparing students to be career ready.

School Mission

WMG Academy aims to send students into the world with a professional attitude, an understanding of business and a mature approach to work. Our 'business-like, business-led' ethos gives students a head start. Employers pay for apprentices to study and work, with many commanding generous starting salaries in secure industries. Our mission is to equip our young engineers with the skills, attitudes and education that will make them attractive prospects for our partner employers and educational institutions.

All subject areas created a curriculum intent statement at the start of September 2021. These are on the following pages and represent a working document, to be refined during our training time and in gained time towards the end of summer term, leading up to improved planning documents for teaching from September.

Subject specific curriculum intent statements

Below is the Engineering Design intent statement for reference, with the remaining statements included in the [appendix](#) at the end of this document.

Engineering Design Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be prepared for their future destinations.
The following <i>mega-concepts</i> run throughout Engineering Design, and are essential to mastery of this subject. Creativity Sketching and drawing Comprehension Problem Solving Resilience Practical skills CAD/Computer skills
Throughout the course, we intend students to develop a robust understanding of: Manufacturing processes/scales of production Knowledge of legislation/regulations Research/analysis Understanding of the different uses for tools/materials Planning Knowledge of formal and informal drawing techniques Understanding of CAD software and its
In Engineering Design, we have the following business-led opportunities: Work directly with Triumph (previously JLR) to deliver content and workshops with the company. Visits to partner/other companies. Ongoing discussions with employer partners on their needs for their current and future workforce feed into refining ongoing Engineering curriculum planning.
Engineering Design allows for unique experiences in: Project is set by an external company (Triumph) meaning they are working on a 'real work environment' project set in context to bring the curriculum to life .
Creativity; Multi disciplined; Cross curricular; Specialist

3. Implementation

On the first of September 2021, we began discussing “mega-concepts” – themes, skills and knowledge that underpin the learning of topics in each subject area. Subject leaders and teachers looked at how these mega-concepts are applied in each half-termly scheme of learning and we began the process of building a detailed set of curriculum plans. These plans, along with long-term overviews are the key documents to inform lesson planning, and give an idea of where students should be up to at the end of each half-term.

Implementation of these plans were accelerated further when the Assistant Principal in charge of teaching and learning took up post. From the start of January, some additional work has gone into planning and each subject now has a reasonable set of documents to guide curriculum delivery over the 2 years, and with finer detail covering each half-term. Coming back after February half-term, teachers were able to use the advanced information from exam boards to construct “final countdown” plans for year 11 and 13, and these plans will guide students in their own revision in the run up to the summer exam season.

An example of a Y11 countdown plan is shown below:

Date	Weeks to exam	Lesson 1	Lesson 2	Lesson 3
28-Feb	9	Mock exams	Von Neumann and FDE revision #1	Mock exams
07-Mar	8	Mock exams and some coding practice	Von Neumann and FDE revision #1 Registers, ALU, RAM and need for secondary storage CPU components and impact on speed	RAM, ROM, virtual storage Optical, Magnetic and Solid State - table of comparisons with capacity, speed, portability, durability, reliability and cost
14-Mar	7	Mock exams feedback and review - paper 1	Mock exams feedback and review - paper 2	Binary and hexadecimal Most Significant Bit Binary shift left and right
21-Mar	6	Networks and topologies Performance factors Hardware for LAN Internet as worldwide WAN of LANs	Protocols and security - standards, IP & MAC, modes of connection, encryption & network security	Operating systems and utilities Features and functions; memory management; user account management; file management
28-Mar	5	Encoding - sound	Encoding - images	Impacts of digital technology on wider society Relevant legislation - Copyright, computer misuse, software licences & open source
04-Apr	4	Principles of computational thinking and how they are used to define and simplify problems. Include	Designing algorithms #1 - pseudocode solutions	Designing algorithms #2 - flowchart symbols
11-Apr		Easter holidays		
25-Apr	3	Designing algorithms #3 - pseudocode solutions	Data types and mathematical operators #1 Include int, real, Boolean, Chr, Str and casting Include MOD and DIV, !=, <, >, <=, >=	Practical application - code a simple calculator. Include basics of functions
02-May	2	Logic gates and truth tables #1	Logic gates and truth tables #2	Practical application - simple IF and WHILE statements with 2 conditions Include random number generation
09-May	1	Practice questions to include recent topics and use to introduce SQL	Practice questions to include recent topics and use to introduce SQL and file handling	Final interleaved quiz & misconception busting
16-May	0	Exams start		
		16th May 2pm CS paper 1 27th May 2pm CS paper 2		
23-May	-1	(Revision on pseudocode solutions)	(Revision on pseudocode solutions)	(Fri 27th May 2pm Paper 2)
30-May		Half term 30th May - 3rd June		

Countdown plans have been shared across the teaching teams and with students. Implementation requires some adjustments by teachers to take account of differing needs within classes and pace of progress. Staff have increased the amount of homework being set for Y11, which will bolster consolidation of key concepts in the final weeks of learning leading up to the summer examination

series. Some further, finer adjustments will be made after marking the March mock exams, to deal with any common misconceptions.

4) Impact

Quality Assurance

Planning documents are in place for each subject area and these are being used to inform planning lessons; however, as this is a new way of working for some teachers, moving planning into practice is an ongoing focus. Our first round of learning walks in February were designed to encourage and support teachers and students in getting the basics right and establish the climate for learning. To this end, teachers were asked to:

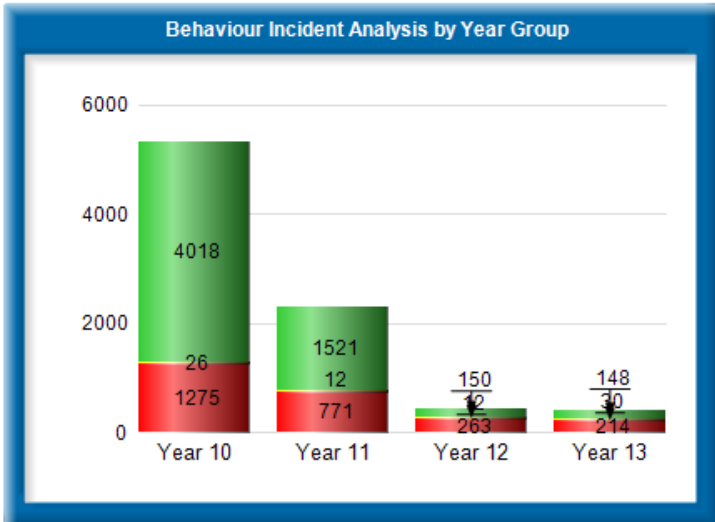
- 1) Ensure learning objectives are shared with students
- 2) Ensure students do not have earphones in or use mobile phones during the lesson
- 3) “The hustle” – ensure that the teacher is moving around the room keeping students on task, AFL and keeping momentum ongoing throughout the lesson

The learning walks were carried out by SLT and ESLT, as well as some joint observations with our CEO and one of the governors with a wealth of teaching and educational experience, Andy Mottershead. Our conclusions were that teaching is good in most lessons and behaviour is good in most lessons. We also found that although teachers are making significant progress with ensuring our key focus areas are met. Some inconsistencies, particularly around sixth form lessons are being addressed. This is partly because the Year 12s have not been through the formal examination process and ‘rite of passage’ of GCSEs and as such, in some cases, have lacked the maturity that we normally see in students studying within the sixth form. Another reason for this is perhaps due to the lack of opportunity for assemblies and themed discussions with the sixth form cohort. This concern will be addressed during the weeks up to Easter, and repeat assemblies will be delivered to years 10 and 11 to help embed a consistent approach to routines and even higher expectations for students’ progress during lessons.

The change of leadership in Teaching and Learning has presented the opportunity to drive forward a renewed focus on bringing the Academy back together as a new and cohesive whole after the past two years of uncertainty and disruption. There has already been excellent progress in getting staff on board with our new behaviour system and achieving shared teaching and learning priorities.

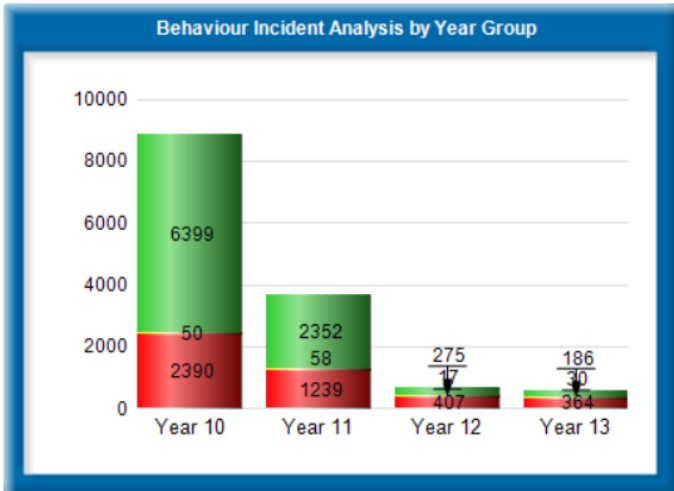
The appointments of the Assistant Principal and Director of Pastoral also have also had the additional positive impact of galvanising the senior team following the movement of two team members to promoted positions outside of the Trust. We secured an HLTA staff member shortly after Easter, following a period in which we were short-staffed. In addition, we are carrying out weekly reviews of our behaviour and attendance systems. This is having a positive impact, demonstrated by the 3:1 ratio of positive to negative points on our behaviour tracking MIS. We have targeted Y10 initially, and are now increasing positive points and rewards for Year 11, with the intention to create further opportunities to recognise the achievements of students in the sixth form.

Below is the analysis by year group, from 3rd January to 18th March 2022. This represents a 42% rise in positive points in Y10 and 22% rise in Y11 for the preceding 12 weeks period.



Year	Reg. Group	Neutral	Negative	Positive
⊕ Year 10	Total:	26	1275	4018
⊕ Year 11	Total:	12	771	1521
⊕ Year 12	Total:	12	263	150
⊕ Year 13	Total:	30	214	148
Total:		80	2523	5837

The trend continues to be 3:1 for positive to negative behaviour incidents recorded. Below is the updated graph of behaviour incidents logged from January to May 2022.



Ten of our top scoring Y11 students who sat their Cambridge Nationals exams in January received a £10 voucher, which further improves the positivity in the Academy, as well as providing an incentive to other students to try their best.

Positive Incidents Top 20			
Learner	Reg. Group	Points Total	Incident Total
Singh, Inderjit	10.1	229	187
Khanodoker, Mahathir	10.6	131	110
Hallworth, Jacob	10.1	122	106
Southwell, Finlay	10.3	122	104
Harsha, Priyanka	10.2	111	103
James, Callum	10.4	111	101
Glica, Oskar	10.4	111	101
Fatayer, Rayvan	10.4	132	100
Moskal, Kacper	10.1	118	97
Anan, Lloyd	10.6	121	96
Ghebragziabher, Feben	10.6	110	93
Arko, Bryan kofi Boadzi	10.5	100	92
Millward, Sean	11.1	120	92
Bowen, Mason	10.3	99	82
Kennell, Jonathan	10.3	92	82
Smith, Louisa	10.4	100	82
Geaney, Rudy	10.5	88	80
Lynch, Patrick	11.2	93	80
Kabango, Eidlis	10.5	90	80
Brown, Georgia	10.5	90	79
Ugurlu, Melih	10.6	99	79
Legbedze, Mikhail	10.3	105	79
Awosokanre, Oluwasemilore	10.1	93	79
Evans, Ellie	10.6	94	79

Our top performing students are almost entirely in Y10. This is partly due to our focus on this year group, but perhaps also in part due to the stronger relationships that have been established with this new cohort who joined us in September.

4. Ongoing and future training and developments

The disruptions over the past two years are a global challenge, with only a few unique features in our Academy. Notably, as our intake begins in Year 10, with students who have missed out on the structure, routines and normality, there is a greater divide between our expectations and what students arrive with. Coupled with changes in leadership and a relatively young teaching body, we are presented with challenges and opportunities: students are joining us with more mental health and behaviour support needs than previously; our new staff are on-board and eager to establish themselves in the profession.

The next steps revolve around building all teachers' confidence in:

- 1) Setting meaningful objectives and challenging activities
- 2) Maintaining consistently high expectations for behaviour
- 3) Improving teaching practice through CPD, using the WalkThrus training materials

Teaching and learning are good and have the potential to excel over the coming two years, now that we have more stability and key vacancies have been filled. Training staff will remain a top priority as we support a large cohort of new teachers to become established and flourish in our profession.

5) Appendix - Curriculum Intent Statements

GCSE physics Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be able to answer questions to their GCSE target, demonstrating scientific understanding on a range of topics areas.
The following <i>mega-concepts</i> run throughout GCSE physics / physics sections of CS, and are essential to mastery of this subject. Energy Electricity Particle model of matter Atomic structure Forces Waves Magnetism and electromagnetism
Throughout the course, we intend students to develop a robust understanding of: Mathematical skills, ability to interpret questions, practical skills, following instructions
In GCSE physics / physics sections of CS, we have the following business-led opportunities: National Grid workshops Physics challenge
GCSE physics / physics sections of CS allows for unique experiences in: Practical work. Potential visits to nearby universities or external visitors.
Science is a highly respected subject that increases employability.

Electronics Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be able to solve problems in electronics , designing circuits, performing calculations and investigating inputs and outputs
The following <i>mega-concepts</i> run throughout Electronics, and are essential to mastery of this subject. Understanding key concepts including current and voltage/engineering standard form and multipliers/ algebraic manipulation/component identification and key properties, flowcharts, coding, fault finding and testing virtual and real world
Throughout the course, we intend students to develop a robust understanding of:

Circuit analysis, virtual design, practical construction of circuits, developing specifications, test plans and systems approach to design and investigation and testing

In Electronics, we have the following business-led opportunities:

Real world contexts and problem solving

Electronics allows for unique experiences in:

embodies scientific, mathematical and practical aspects in real world and using many abstract concepts

High demand subject with employers - considerable employment opportunities

English Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be confident readers, writers and speakers

The following *mega-concepts* run throughout English, and are essential to mastery of this subject:

literacy, spelling, inference, context, grammar, punctuation, sentence structure

Throughout the course, we intend students to develop a robust understanding of:

spag, skimming, scanning, evaluation, sentence structures, genre, audience, purpose

In English, we have the following business-led opportunities:

speaking and listening, world book day, world poetry day, well structured writing

English allows for unique experiences in:

theatre visits, readathon, school library, BFI London

we like to develop vocabulary, we want 'word of the week' back

BTEC Science Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be able to independently write high level assignments demonstrating thorough understanding of various topic areas.

The following *mega-concepts* run throughout BTEC Science, and are essential to mastery of this subject.

Assignment writing

Practical work

Exam content

Experimental design

Research skills

Long answer writing

Throughout the course, we intend students to develop a robust understanding of:

Assignment writing

Practical work

Exam content

Experimental design

Research skills

Long answer writing

In BTEC Science, we have the following business-led opportunities:

Opportunities, talks and visits at nearby universities such as the University of Warwick

BTEC Science allows for unique experiences in:

Practical work, support in structuring assignments.

We have the highest results of any subject in the academy.

A level Product Design Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be Enthused, equipped , engaged

The following *mega-concepts* run throughout A level Product Design, and are essential to mastery of this subject.

technical skills, analytical skills, transferability of employer skills, business led, Business like, Design and making practice.

Throughout the course, we intend students to develop a robust understanding of:

Maths

In A level Product Design, we have the following business-led opportunities:

WMG University Warwick, Pinsent Masons, BSI, Triumph, TEENTECH awards

A level Product Design allows for unique experiences in:

All students entered into local and national competitions, working with colleagues at the university of Warwick with Lectures and guest speakers organised once a month.

All projects are Bespoke

GCSE Biology / biology section for combined science Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be Able to answer questions to their GCSE target, demonstrating scientific understanding of a range of topic areas.

The following *mega-concepts* run throughout GCSE Biology / biology section for combined science, and are essential to mastery of this subject.

1. Cell biology
2. Organisation
3. Infection and response
4. Bioenergetics
5. Homeostasis and response
6. Inheritance, variation and evolution
7. Ecology

Throughout the course, we intend students to develop a robust understanding of:

Mathematical skills, ability to interpret questions, practical skills, following instructions, drawing

In GCSE Biology / biology section for combined science, we have the following business-led opportunities:

Biology challenge, biology talks at University of Warwick

GCSE Biology / biology section for combined science allows for unique experiences in:

Practical work, internal and external visitors, entry into Biology competitions,

Biology challenge, potential for medicine and dentistry careers

A level Biology Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be Able to answer questions to a level target, demonstrating scientific understanding of range of topic areas

The following *mega-concepts* run throughout A level Biology, and are essential to mastery of this subject.

1. Biological molecules
- 2 Cells
- 3 Organisms exchange substances with their environment
- 4 Genetic information, variation and relationships between organisms
- 5 Energy transfers in and between organisms (A-level only)
- 6 Organisms respond to changes in their internal and external environments (A-level only)
- 7 Genetics, populations, evolution and ecosystems (A-level only)
- 8 The control of gene expression (A-level only)

Throughout the course, we intend students to develop a robust understanding of:

Mathematical skills, practical skills, ability to interpret questions, drawing, following instructions

In A level Biology, we have the following business-led opportunities:

Biology olympiad

A level Biology allows for unique experiences in:

practical work, internal and external visitors, entry into biology competitions, Essay writing

Biology challenge, potential for medicine and dentistry careers.

A Level Chemistry Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be able to answer questions to their A level target, demonstrating scientific understanding of various topic areas

The following *mega-concepts* run throughout A Level Chemistry, and are essential to mastery of this subject.

Organic chemistry, inorganic chemistry, physical chemistry, numeracy, practical skills and interpretation of data

Throughout the course, we intend students to develop a robust understanding of:

Mathematical and practical skills, data analysis, literacy skills to write lab reports and critical understanding.

In A Level Chemistry, we have the following business-led opportunities:

Talks at the University, links to the University to borrow high level equipment

A Level Chemistry allows for unique experiences in:

Chemistry provides numerous opportunities to use practical experiences to link theory to reality, and equip students with the essential practical skills they need, whilst learning a wide range of knowledge to give a strong foundation for a future in science.

Potential for medicine, dentistry and scientific research careers

AS and A-level Physics Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be Able to answer questions to their A-level standards, demonstrating scientific understanding of various topic areas.

The following *mega-concepts* run throughout AS and A-level Physics, and are essential to mastery of this subject.

- 1 Measurements and their errors
- 2 Particles and radiation and waves
- 3 Mechanics and materials
- 3 Electricity
- 5 Further mechanics and thermal physics
- 6 Fields and their consequences
- 7 Nuclear physics
- 8 Astrophysics

Throughout the course, we intend students to develop a robust understanding of:

Mathematical and practical skills, data analysis, critical understanding.

In AS and A-level Physics, we have the following business-led opportunities:

Physics based talks/lectures at University of Warwick.

AS and A-level Physics allows for unique experiences in:

Physics is fundamentally an experimental subject and it provides numerous opportunities to use practical experiences to link theory to reality, and equip students with the essential practical skills they need.

Physics lays the groundwork for further study in science or engineering.

GCSE Chemistry/Combined Science: Chemistry Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be Able to answer questions to their GCSE target, demonstrating scientific understanding of various topic areas

The following *mega-concepts* run throughout GCSE Chemistry/Combined Science: Chemistry, and are essential to mastery of this subject.

1. Atomic structure and the periodic table
2. Bonding, structure, and the properties of matter
3. Quantitative chemistry
4. Chemical reactions
5. Organic chemistry
6. Chemical analysis
7. Chemistry of the atmosphere and using resources

Throughout the course, we intend students to develop a robust understanding of:

Practical skills

Writing chemical equations

Chemical calculations

Data analysis

In GCSE Chemistry/Combined Science: Chemistry, we have the following business-led opportunities:

Chemistry based lectures/talks at University of Warwick

GCSE Chemistry/Combined Science: Chemistry allows for unique experiences in:

Hands on practical activities

Learning a vast variety of skills including data analysis, problem solving and critical thinking.

Potential for Medicine/Dentistry careers. Many transferrable skills for a number of different future career opportunities.

Art Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be enthused, equipped and engaged

The following *mega-concepts* run throughout Art, and are essential to mastery of this subject.

Drawing, experimentation, reflection, contextual awareness, collaboration/conversation, personal understanding and self discovery.

Throughout the course, we intend students to develop a robust understanding of:

Contextual studies, Skills, understanding of process, ability to experiment, visual language.

In Art, we have the following business-led opportunities:

Artist visits, galleries and workshops conversations with Artists, engagement with city of culture.
Pitt Rivers workshop

Art allows for unique experiences in:

Practical tasks, personal journey, creative, student led

Personal response, critical thinking, discussion/ conversation, skill development, future pathways, resilience, self awareness.

History Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be able to understand key historical events and find patterns of events in the modern world.
The following <i>mega-concepts</i> run throughout History, and are essential to mastery of this subject. continuity, change, cause, consequence, significance, similarity and difference.
Throughout the course, we intend students to develop a robust understanding of: Understand key historical vocabulary, dates, important people and events
In History, we have the following business-led opportunities: Holocaust Survivor visit, Warwick Politics Department, Parliament visit, links with local MP
History allows for unique experiences in: Speakers coming in, reliving the past, a trip to Berlin?, Kenilworth Castle
Political understanding, facts, modern world events linked to the past. Medieval to modern day.

Cambridge Technical Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be Enthused, equipped, Engaged
The following <i>mega-concepts</i> run throughout Cambridge Technical, and are essential to mastery of this subject. Maths, Science, Mechanical design, CAD, Mechanics (maths). analytical skills
Throughout the course, we intend students to develop a robust understanding of: Maths
In Cambridge Technical, we have the following business-led opportunities: Aston Martin
Cambridge Technical allows for unique experiences in: Students experience a 2 year commission with Aston Martin
Company commission

ICT Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be competent in the use of computers and understand the concept of the Project Life Cycle
The following <i>mega-concepts</i> run throughout ICT, and are essential to mastery of this subject. Project Life Cycle, Initiate. Planning. Execute. Evaluate. Computer Competency
Throughout the course, we intend students to develop a robust understanding of: Initiate, Plan, Execute and Evaluate a project. Produce a solution to a given problem.
In ICT, we have the following business-led opportunities: Projects are all business related and computer related
ICT allows for unique experiences in: Combining concepts and skills learned in Engineering and Business to produce a solution to an ICT related project, using skills and concepts acquired in ICT lessons.
Computer skills taught by an expert that can facilitate learning in other subject areas.

Engineering Manufacture Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be able to follow the design and manufacturing process, understand process, methods and terminology with the end result to be able to join industry
The following <i>mega-concepts</i> run throughout Engineering Manufacture, and are essential to mastery of this subject. Accuracy, Critical analysis, Comprehension, Problem solving, Numerical reasoning, Evaluation skills, Resilience
Throughout the course, we intend students to develop a robust understanding of: manufacturing processes, mechanical properties, health and safety considerations, CAD, production planning, material qualities, testing procedures (NDT, DT), technical drawing interpretation.
In Engineering Manufacture, we have the following business-led opportunities: all engineering companies. The list is too large
Engineering Manufacture allows for unique experiences in: What you learn is directly relevant to real industry, company visits from companies such as Squires, triumph, JLR, Bosch
Engineer from the from Old French engineer "engineer, architect, maker of war-engines; schemer" (12c.) creators, make the impossible - possible

Business Studies Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be Equipped with the skills to be confident to explore how different business situations affect business decisions and be able to make informed choices about a wide range of further learning opportunities and career pathways as well as develop life skills th

The following *mega-concepts* run throughout Business Studies, and are essential to mastery of this subject.

Evaluate, analyse, problem solving, numeracy, transferable skills, comparing.

Throughout the course, we intend students to develop a robust understanding of:

Business Ownership, Marketing, HR, Operations, Finance and Influences on Business

In Business Studies, we have the following business-led opportunities:

External visits to businesses - e.g. Cadbury World, Amazon FC, Jaguar Land Rover.

Visits from businesses to deliver presentations or workshops - National Grid, Pinsent Masons.

Business Studies allows for unique experiences in:

Increased company interaction.

The opportunity to see theory working in practice through company interaction.

Mathematics Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be passionate about learning maths and using it in their future endeavors.

The following *mega-concepts* run throughout Mathematics, and are essential to mastery of this subject.

Problem Solving, Reasoning, Mathematical Notation, Numeracy, Functional Skills, Graphical Competency, Mathematical Competence

Throughout the course, we intend students to develop a robust understanding of:

KS4: Times Tables, Arithmetic, Formulae for Shapes, Equation Skills, Averages, FDP, Proofs.

KS5: Calculus, Coordinate Algebra, Trigonometry, Pythagoras, Statistical Methods, Mechanical Methods, Proofs

In Mathematics, we have the following business-led opportunities:

Finance, Insurance, Accounting, Games Design

Mathematics allows for unique experiences in:

It is a facilitating subject that underpins all of science, engineering, and technology. It is the only subject that teaches problem solving. National and International Maths Challenges/Olympiads

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BTEC Engineering Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be Ready for an apprenticeship

The following *mega-concepts* run throughout BTEC Engineering, and are essential to mastery of this subject.

technical skills, analytical skills, team working skills, presentation skills (including oracy).

Throughout the course, we intend students to develop a robust understanding of:

Maths

In BTEC Engineering, we have the following business-led opportunities:

Cummins, Sarginsons, Balfour Beatty, National Grid,

BTEC Engineering allows for unique experiences in:

internal units are bespoke and linked to live scenarios and where appropriate linked to our Tier 1 company partners.

Ready for work

Geography Curriculum Intent Statement

By the end of their learning journey, we intend for our students to be engaged, equipped and enthused. WMG Academy students can choose to follow the Geography curriculum that is linked to our business-led, business-like ethos. Geography explores locations, places, environments and processes in a range of different settings and scales.

The following *mega-concepts* run throughout Geography, and are essential to mastery of this subject.

Analysis,

Environment

Climate change

Contrast and compare

Resource scarcity

People and places

Social environmental economic and political

Culture and inclusive society

Throughout the course, we intend students to develop a robust understanding of:

Geographical skills including SPAG, people and place, exploration, environment and climate change.

In Geography, we have the following business-led opportunities:

Knowledge of world systems and business like behaviours and engagement with companies via school trips, visits and fieldwork opportunities..

Geography allows for unique experiences in:

Self reflective practice for students to understand their place in the world that they live.

Sociological imagination and Climate conversations through the lens of Geographical skills.