Twyford CofE Academies Trust

Document Title	**Curriculum Policy**
Committee Responsible for Policy	**Curriculum Committee**
Review Frequency	**Annually**
Last Reviewed	**June 2023**
Next Review Due	**June 2024**
Policy Author	**Executive Headteacher and Associate Headteachers**

Assessment of the Impact of a Policy on Equality & Diversity

Policy: Curriculum Policy	
Impact assessed by: R Lane	**Date:** 11/3/2022
1. What is the potential for this policy impacting a person or group with a protected characteristic differently (favourably or unfavourably) from everyone else? Significant. The curriculum may not present the interests and values of different groups in a balanced way. For example, the History curriculum might ignore Black History or the Music curriculum might ignore female composers.	
2. How would this be evidenced? If the curriculum departs from the requirements of national examining bodies which are subject to rigorous monitoring and scrutiny.	
3. Is there evidence that the operation of the current policy might impact a person or group with a protected characteristic differently from everyone else? No.	
4. If the answer to 3 is 'Yes', please provide details and evidence.	
5. How might the new policy change this?	
6. Are there any other changes to the policy which might impact a group with a protected characteristic differently from everyone else? No.	
7. If the answer to 6 is 'Yes', please provide details and evidence.	
8. Policies are required to reduce or eliminate inequality and disadvantage and promote diversity. Does this assessment indicate that the Policy passes or fails this test? Pass	

Curriculum Policy

1.1 Policy Statement

It is the Trust's aim to provide pupils with a curriculum which, to the greatest extent possible, reflects the ethos and values of the Trust and a number of design principles. These values and design principles are described in detail below. The Trust's financial, staffing and other resources are limited so to realise this aim these resources have to be used efficiently. Trade-offs are sometimes necessary in the realisation of this policy aim particularly around efficient deployment of specialist staff and ensuring average class size targets are met. The Trust's Efficiency Strategy targets average class sizes exceeding 25 for Key Stage 3, 20 for Key Stage 4 and 16 for Key Stage 5.

1.2 Trust Values

The school ethos, which is captured in our 10:10 ethic, emphasises a belief in the capacity of students to do and be good. This ethos is built on the premise that that all students should become aware of their own abilities and aptitudes and use these effectively. They should be disciplined in improving their skills and should be encouraged to stretch. In doing this they should gain a positive sense of their own gifts and how they can develop and apply them. The construction of the school curriculum makes a major contribution to the ethos of the school ensuring there is academic challenge for all students, irrespective of their starting points or backgrounds. The Trust expectation is that students will be stretched through the formal taught curriculum (which will include academic and applied opportunities), the pastoral curriculum and through the wider curriculum (e.g. extra-curricular activities, extension opportunities and via the spiritual life of the school community).

The curriculum policy defines the principles of how the curriculum is designed in Trust schools *Please also see links to the Trust policies on SMSC and on Assessment*

1.3 Definitions

Curriculum: In this document, curriculum is used to mean 'What is taught' and refers to both knowledge and skills (both subject specific and generic). The Twyford Trust curriculum is designed deliberately to be both knowledge rich and skills focused. It has also been designed to achieve strong continuity through Years 7 – 13. Skills are explicitly taught and practiced within a subject context rather than as a separate exercise. Generic skills of literacy and retention/retrieval are consciously reinforced across the curriculum. For some students additional literacy classes are run, in order to ensure access to the curriculum.

Curriculum Model: This term is used to refer to the overall arrangement of the curriculum for each year group including the amount of time allocated to each subject, the range of options subjects at GCSE and A-level and the levels of differentiation.

Curriculum Intent: Each subject has a clear statement of its overall intent. This also summarises subject specific skills/categories of knowledge and how these are grouped into assessment objectives. The statement of intent is common for each subject across the Trust and is expected to remain relatively stable from one year to the next.

Curriculum Implementation: Each subject has a clear content and skills map, which shows how these elements have been selected and sequenced. This may vary slightly from one institution to the next, for example where specific modules/texts are chosen from within a single exam syllabus). The curriculum implementation is reviewed annually in the light of teacher feedback, the outcomes achieved in external examinations and syllabus changes.

Curriculum Impact: The impact of the curriculum is measured through effective in-year assessment as well as summatively in external exams. Robust formative assessment has been integrated into the curriculum, with formal examinations twice a year and less formal teacher assessments, assessed homework and in-class assessment for learning, allowing staff and students to judge what has been learnt. The content and marking of school examinations are consistent across the Trust and there is moderation of additional teacher assessments. These processes enable comparisons to be made across the Trust of the impact of the curriculum implementation in each school and how far it delivers the subject intent. A common grading system is used in formal teacher assessments and examinations and this allows staff, students and parents to see the pace of a student's progress from Years 7 – 11 as well as informing options choices for Year 10 and Year 12 respectively.

(See linked Documents: Appendix 1 for sample overview document)

Principles: A Stretch Curriculum in a Comprehensive Context

The curriculum has been defined in order to cater for the wide range of abilities at the school. To ensure all students are stretched – irrespective of their starting points, the curriculum is differentiated into three broad bands so that they are positioned to make informed decisions on pursuing a curriculum pathway which is suited to their own particular gifts from the start of Year 10 and then narrowing this focus further at post-16. In Years 7 - 8, the focus is on giving students very strong foundations in core subjects and ensuring the national curriculum coverage is secure. In Year 9, students consolidate their learning in EBAC subjects and RE as well as increasing their level of engagement with subjects which they may wish to specialise in further at Year 9 and beyond (this includes creative/performing arts and computing / computer aided design).

The principles of the Trust curriculum are:

- It has a strong core which focuses on acquisition of strong skills in facilitating subjects
- It is content rich
- It is differentiated to provide stretch and challenge for all students using a 3-level approach
- It encompasses wider learning and independent learning, spiritual, moral, social and cultural education as well as classroom based lessons
- It equips students of all back grounds with robust cultural, social, moral, spiritual and intellectual capital
- It makes demands of and trains students in the capacity to memorise effectively
- It develops literacy – from simple accuracy to higher order expression of ideas/ evaluation of concepts
- The Curriculum Model is designed to ensure progression from Year 7 to Year 13

- The curriculum itself is progressive – both knowledge and skills are built sequentially from one lesson/unit/year to the next
- It is precisely defined and makes demands on students to achieve strong intellectual disciplines, which are transferable
- Students learn to transfer their learning of both skills and content to unfamiliar contexts
- All Trust schools share the same curriculum intent (e.g. skills covered and progression rates) however the implementation and curriculum model may vary slightly between schools in light of school/departmental/student specialisms (e.g. the choice of texts within English/differentiated range of PE or of Music courses/specific MFL languages offered)
- The Trust post-16 curriculum model has been designed to serve the needs of the whole Trust and students have the opportunity to move school for Year 12 in order to pursue a particular specialist course/pathway post-16
- Transparency/clarity of the curriculum and attainment to students and parents is central to strong CIAG and support for students making decisions about onward progression

The Core Curriculum

All students study English, Maths, Science and RE from Years 7 – 11 as compulsory subjects. This ensures students have a solid core of skills and knowledge, which will enable them to progress in a range of directions. Languages and Humanities also form part of the core. All students study two Humanities (History and Geography) from Year 7 - 9 and a large number of students study two languages in Year 8, to give a range of options further up the school. At least one modern foreign language is studied by all but a very small minority of students to the end of Year 9. From Year 10 all students are strongly encouraged to continue with at least one modern foreign language and either History or Geography for GCSE and a large majority of students do so. Creative and applied subjects are also available – though the school, however none of the sites are equipped with DT labs and therefore the curriculum covers the teaching of Design processes within the range of Art courses offered as GCSE options in Graphics and Computer aided Design at individual school sites. Availability is dependent on uptake. Emphasis is placed on Music, which is a Trust specialism, and on Creative Technologies (applications of ICT and Computing) as well as Art, Drama and PE. Curriculum time is broadly split as 60% EBAC subjects (Maths, English, Science, Humanities and languages), 15% RE and SMSC, 25% applied and creative subjects (Art, Drama, Music, Singing and PE). From 2020 the Trust is piloting a Year 9-11 Digital Curriculum in order to ensure all students have an accredited certification with currency in the workplace.

1.4 Coverage and uptake

The curriculum described above is designed to be broad with a high emphasis on facilitating subjects as these provide solid knowledge and skills base. These will most effectively 'open doors' in terms of further progression. At every level, there is a consistent emphasis on Literacy and Cognition (ranging from accuracy and clarity of understanding/expression to high-level technical explanation and sophisticated argument). Consistent approaches are taken across the curriculum to develop knowledge recall and retention.

95% of students are expected to follow a formal EBAC curriculum (minimum: English Literature and Language, Maths, Double Science, History or Geography and one MFL) in Year 7 -8, 85% from Year 9 with 80% continuing in Years 10-11.

Art /Computing /Music/Drama are optional subjects available in all schools.

RE

1.5 RE is compulsory as an exam subject to GCSE for all students and all students follow a full programme of RE and/or Ethics from Year 7. The schools' pastoral programme also makes overt reference to Christian scripture as well as to core concepts within other world faiths. This supplements the religious understanding of students at the school.

1.6

1.7 3-level Differentiation and pathways…

The Trust strategy in designing the curriculum is to ensure there is no compromise at the upper and lower end of the spectrum of student needs. To this end, we have devised a 3 band curriculum referred to as Advanced, Higher and Core. The **Advanced curriculum** is defined by the requirements of Russell group + university entry (e.g. students following it might aspire to A-Level grades AAB or above including at least 2 'facilitating subjects' when they reach Year 13).

The **Higher curriculum** has a conventional academic framework of English, Maths, Double Science, RE with History or Geography and/or one Modern Foreign Language and is designed to ensure students gain grade 4/5 or above in an appropriate range of GCSE subjects. Students who are successful in the **Higher curriculum** are also likely to move on to Level 3 (A-Level or BTEC courses) post 16.

The **Core curriculum** is designed to ensure acquisition of sound basic skills (e.g. a GCSE pass in English and Maths plus a package of no less than 6 other GCSE passes). Two of the Trust schools have Additionally Resourced Provision (e.g. ARPs) and it has been important to refine the Core programme to support students who are at the borderline of accessing mainstream provision. A 'Nurture Curriculum' has therefore been developed with a strong emphasis on basic literacy, numeracy and life skills for these students. Where possible, there is integration into the mainstream, however a number of specialised support classes are also run which are targeted at individual special needs.

A second assumption of the Trust curriculum design is that students should be able to move from one curriculum band to another according to progress made.

- The **Core curriculum** in Years 7 - 8 targets literacy and numeracy support at students (usually defined as reading ages below 10), in order to move as many students onto higher programmes by the end of Year 8 as possible.
- Equally, the strong academic framework of the higher programmes will enable students who make outstanding progress in Years 10 - 11 to move onto a wider range of advanced courses post 16.

- Year 9 is seen as a transition year towards GCSEs in which all students start GCSE style learning. Students make initial options choices in creative and practical subjects at the end of Year 8 in order to go into greater depth in Year 9 and to be able to discern which subjects they are likely to want to study at GCSE. All students take core RE and PE as well as a full tutor time programme of PSHE.

1.8 Progression and Pace

The Trust curriculum has been consciously created to give continuity from Year 7 - 13. Common assessment objectives are used throughout the delivery in a subject starting from Year 7. The banding of the curriculum allows teachers to ensure students make strong progress from their individual starting points. The pace of the curriculum should allow all students to attain well above national levels of expected progress between Year 7 - 11. The schools uses a numerical grading system, which aligns with GCSE grades in the upper school. The progression rate is shown below.

Trust progression chart:

	KS2 Entry grade	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11
Advanced +	118-120	6-	6+	7	8-	8+
Advanced	116-117	5+	6	7-	7+	8
	111-115	5	6-	6+	7	8-
	109-110	5-	5+	6	7-	7+
	107-108	4	5-	5+	6	7-
Higher	105-106	4-	4+	5	6-	6+
	103-104	3+	4	5-	5+	6
	102	3	4-	4+	5	6-
	100-101	3-	3+	4	5-	5+
	99	2+	3	4-	4+	5
	95-98	2-	2+	3	4-	4+
Core	92-94	1+	2-	2+	3	4-
	89-91	1	2-	2	3-	3+
Nurture	85-88	1-	1+	2	2+	3

There is a high overlap between the curriculum coverage in the lower sets following the **Advanced course** and the top sets in the **Higher course**. This will allow students to transfer from one curriculum band to the other in any one subject. Teachers are also aware that students at the higher end of a grade boundary on entry have a greater chance of achieving 4 levels of progress than those at the lower end on entry.

Although progression is usually measured based on KS2 grades on entry, students also sit Cognitive Ability Tests (CATs) at the start of Year 7. These scores provide helpful additional information about a student's broad level of ability and scores fall roughly into these bands:

Curriculum Tier	CAT Scores
Advanced+	130 and above
Advanced	111 – 129

Higher	95 – 110
Core	85 – 94
Nurture	Below 85

1.9 Year 9 and Year 11 transition

Year 9 is seen at the school as a GCSE transition year during which all students begin to work in the style expected at GCSE. Students receive an end of year target as a number of GCSE grades. The end of year targets have been set up to ensure that they have made better than expected progress from KS 2 to KS4 by the end of Year 11. This system allows students to make an informed judgement at the end of Year 9 as to whether a particular subject will be a strong choice for them at GCSE. Formal GCSE option choices are not confirmed until July in Year 9 and are based on the results of the Year 9 examinations.

Students in Year 11 will similarly use their GCSE mock examination grades at Christmas to discern which subjects they will be eligible to study at A-Level.

1.10 GSCE Options

Differentiation within the curriculum at KS3 allows students to discern which subjects they are best at and to begin to focus on these. At the end of Year 8, students will select the creative and applied subjects which they think they are most likely to consider as a GCSE option. This enables them to study these at a greater depth in the transition year and make more informed choices about their final GCSE choices from the start of Year 10.

At GCSE all students study a core of English (Literature and Language), Maths, Science and RE and most students will take 9 GCSEs. Exceptions to this are our most able students who may study an additional (10th) GCSE outside the normal timetable. Students within the Core programme will receive additional periods of curriculum support and therefore may study 7 or 8 courses. In some cases students may chose BTEC subjects as the GCSE equivalent course in an applied area.

In order to assist students in their choices, the KS4 curriculum is arranged in three broad pathways which are also pitched at three levels. Details of the pathways for Trust schools can be found in the KS 4 option booklets: see linked documents.

1.11 Post-16 Offer

In making their KS4 curriculum choices, students are also encouraged to project ahead to KS5 (6th Form) and to consider both the subjects they may wish to pursue and the entry grades required for particular courses. The co-ordination of the curriculum across the 4 schools allows students to make an easy transition from one school to another after GCSE in order to access specific Post-16 choices.

All courses offered Post-16 are Level 3 courses (A-Level equivalent). A-Level courses generally require at least a Grade 6 as the entry criteria and in some cases a Grade 7. Entry grades are usually taken from same subject at GCSE, but in some cases are taken from

English and/or Maths where there is no GCSE equivalent subject. Most subjects offered at GCSE are also available at A-Level.

Individual students have a free choice of subjects within the blocks provided they meet the entrance requirements for the course concerned. Students are however guided towards combinations of choices suitable for access to courses at college and university. These are arranged as 2 tiers and are referred to as (I) **General –** students study 3 A levels from Year 12, (ii) **Twyford Additional Programme/William Perkin Scholars Programme** – students may study 4 courses and would usually be expected to complete an extended project qualification. Students wishing to follow the Additional Programme will be expected to achieve at least Grade 7 in all GCSEs with Grades 8/9 in their A-Level choice subjects.

A full list of current 6th Form subject choices for both Twyford and William Perkin, the entrance grades and the option blocks can be found in the Key Stage Curriculum documents and the course guides: see linked documents.

The schools undertake a thorough analysis of the destinations of pupils in order to ensure the curriculum has allowed students to progress to their courses of choice (for example checking that the Trust curriculum model allows progression to Design and Engineering courses post-16 and post 18).

Cross Curricular Skills

Approaches to Teaching and Learning are highly evolved – with a focus on supporting students to gain a high level of metacognition (eg awareness of how they are drawing on prior learning and capitalising on new skills and content to good effect). Consistent strategies are used to support the development of literacy and memorisation (see links to checklist of cross curricular strategies). Resources and teaching activities are shared across and between schools. Regular exchanges and paired observation programmes between the schools as well as joint inset and curriculum conferences at departmental level, allow HoDs and Key Stage leads to share best practice in classroom delivery of the curriculum.

Students are made aware of generic thinking skills, which are consistently expressed as follows:

- Listen intently
- Read critically
- Write cogently
- Speak purposefully
- Memorise accurately
- Explore analytically
- Discern logical patterns
- Form coherent arguments
- Apply systems

The first five of these cross reference with literacy and retention and retrieval skills. The final four are higher order skills developed in subject contexts.

1.12 Independent learning

All core subjects are expected to set lesson preparation in every lesson which is used as a bridge between one lesson and the next. Lesson preparation should ensure that every student comes to the lesson prepared and ready to learn. Effective use of lesson preparation allows teachers to set expectations of 'low level tasks (such as memorising vocabulary or formulae, pre-reading or research) being undertaken outside the lesson in order to ensure lesson time is used effectively to work on more challenging activities. In Years 7-11, lesson preparation should normally take 15 - 20 minutes and is in contrast to longer written homeworks, which will be set 2 or 3 times per half term. These homeworks are longer pieces of work which will have been prepared for in class and are formally assessed as part of the students grades for the term/half term. Homeworks will give students the opportunity to apply and extend their class learning. In Years 12 - 13, students should be set at least one hour of independent work for each lesson from that day.

1.13 Accessing the Curriculum

Each department has its own area of Copia (the School's Virtual Learning Environment). Copia contains the overview of the curriculum (assessment objectives and skills), as well as lesson level resources. Students are strongly encouraged to use Copia to recap on an area of any topic, which they may not have understood, or to access resources to support their independent learning. Departmental areas will also contain links to extension activities.

1.14 Electives and Wider Learning

Twyford Trust schools encourage all students to gain the benefit from an extended school day. William Perkin. Ada Lovelace and Ealing Fields offer additional curriculum hours in applied science and ethics, respectively referred to as the elective offer. All four schools offer the students opportunities to undertake wider learning activities (or extended electives) which extend curriculum opportunities. In some cases, these will involve 6th Form students coaching or supporting clubs (such as Debate club or Science Club). In others, wider learning may take the form of preparation for competitions (Maths Challenge, Maths Olympiad) or Youth Speaks Out).

Subjects such as PE, Music, Art and Drama will rely heavily on a programme of extra-curricular or elective activities to stretch and challenge students. All students in the Lower School are encouraged to take at least two extra-curricular activities and to retain at least one of these in Upper School.

1.15 The Pastoral Curriculum and SMSC

All students follow a compulsory pastoral curriculum which comprises PSHE, SMSC and CIAG, taught during tutor times and a workshop programme. The programme covers topics such as community responsibility, peer pressure, informed choices and careers guidance. It also includes awareness of issues such as bullying, internet safety, and substance abuse.

The pastoral curriculum has been developed to support the Christian identity of the Trust and uses bible stories and case studies of iconic figures as part of its core content.

1.16 Consistency of delivery between schools

Each of the Trust schools adheres to the same intent within its curriculum design, however implementation may vary slightly.

The current curriculum weighting for each subject in each school is given below.

Use of the same impact measures allows SLT/MLT and Governors to monitor the effectiveness of the implementation. Governors will expect SLT and MLT to revise the curriculum model or improve delivery if significant variations in impact are observed.

Current timings at William Perkin, Twyford, Ealing Fields and Ada Lovelace

Hours per week	Yr Grp	English	Maths	Science	MFL	History	Geog	RE	Art	Comp	Music	PE	Other Dr/Sing
Twyford 5x5 + sport= 25.5 hours + 40 mins Past/ SMSC per week	7	3.5 (210)	3.5 (210)	3.5 (210)	4 (240)	1.5 (90)	1.5 (90)	1.5 (90)	1 (60)	1 (60)	1 (60)	1.5 (90)	2 (120)
	8	3.5 (210)	3.5 (210)	3.5 (210)	4 (240)	1.5 (90)	1.5 (90)	1.5 (90)	1 (60)	1 (60)	1 (60)	1.5 (90)	2 (120)
	9	3.5 (210)	3.5 (210)	3.5 (210)	4.5 (270)	1.5 (90)	1.5 (90)	2 (120)	3 periods electives x2 (180)			2 (120)	/
	10	4 (240)	4 (240)	5.5 (330)	3 (180)	3 (180)		2 (120)	Option =2.5 (150)			1 (60)	Some P6
	11	5 (300)	5 (300)	5.5 (330)	3 (180)	3 (180)		/	Option =2.5 (150)			1 (60)	Some P6

Hours per week	Yr Grp	English	Maths	Science	MFL	History	Geog	RE	Art	Comp	Music	PE	Other Dr/Sing
William Perkin / Ada Lovelace 5 hrs 50 mins x5 = 27hrs 30 33pds + 40 mins Past/SMSC per week	7	5 (250)	5 (250)	5 + 2 (350) + (100 H/T rota)	4 (250)	2 (100)	2 (100)	1 (50)	2 (100)	2 (100)	2 (100 H/T rota)	2 (100)	1 (50)
	8	5 (250)	5 (250)	5 + 2 (350) + (100 H/T rota)	4 (250)	2 (100)	2 (100)	1 (50)	2 (100)	2 (100)	2 (100 H/T rota)	2 (100)	1 (50)
	9	5 (250)	5 (250)	7 (350)	5 (250)	2 (100)	2 (100)	1 (50)	2 periods electives x 2 (200)			2 (100)	
	10	6 (300)	5 (250)	7 (350)	4 (200)	3 (150)		3 (150)	Option = 3 (150)			2 (100)	
	11	7 (350)	5 (250)	6 (300)	5 (250)	3 (150)		3 (150)	Option = 3 (150)			1.5 (75)	

Hours per week	Yr Grp	English	Maths	Science	MFL	History	Geog	RE	Art	Comp	Music	PE	Other Dr/Sing
Ealing Fields 5 hrs 50 mins x5 (except Fri PM) = 27hrs 30 33pds + 40 mins Past/SMSC per week	7	4 (200)	4 (200)	7 (350)	4 (200)	2 (100)	2 (100)	3 (150)	1 (50)	1 (50)	2 (100)	2 (100)	1 (50)
	8	4 (200)	4 (200)	5 (250)	4 (200)	2 (100)	2 (100)	3 (150)	1 (50)	1 (50)	2 (100)	2 (100)	3 (150)
	9	5 (250)	5 (250)	6 (300)	4 (200)	2 (100)	2 (100)	3 (150)	2 periods electives x 2 (200)			2 (100)	
	10	7 (350)	5 (250)	6 (300)	4 (200)	3 (150)		3 (150)	Option = 3 (150)			2 (100)	
	11	7 (350)	5 (250)	6 (300)	4 (200)	3 (150)		3 (150)	Option = 3 (150)			2 (100)	

Hours per week	Yr Grp	English	Maths	Science	MFL	HUMS	RE	Triple or Eng	Comp	PE	Art	Music	Ethics/lit	Lang/lit	Option
Ada Lovelace 5 hrs 50 mins x5 (except Fri PM) = 27hrs 30 33pds + 40 mins Past/SMSC per week	7	5 (250)	4 (200)	5 (250)	4 (200)	5 (250)			2 (100)	2 (100)	2 (100)	2 (100)	2 (100)		
	8	5 (250)	4 (200)	5 (250)	4 (200)	5 (250)			2 (100)	2 (100)	2 (100)	2 (100)		2 (100)	
	9	5 (250)	5 (250)	6 (300)	4 (200)	5 (250)			2 (100)	2 (100)				2 (100)	2 (100)
	10 /11	5 (250)	5 (250)	6 (300)	4 (200)	3 (150)	3 (150	2 (100)		2 (100)					2 (100)
					Or ICT										

Linked documents

Sample Curriculum Overview (Geography)

1. Cross Curricular skills checklists (Literacy and Retention & Retrieval)
2. Key Stage 4 options booklet – Twyford
3. Key Stage 4 options booklet – William Perkin
4. Key Stage 4 options booklet Ealing Fields
5. Key Stage 5 Curriculum document & course guide – Twyford
6. Key Stage 5 Curriculum document & course guide - William Perkin
7. Pastoral Curriculum overview

Appendix to The Curriculum Policy : DT Audit, Design Thinking & Print-Lab Pilot

In the light of changes which the Trust recognises are on the horizon for DT, TCEAT has taken a radical approach to delivery of DT – utilising the specialism and industry networks at Ada Lovelace to pilot an applied approach. The intention has been to bridge the gap between computing /digital literacy – and the DT national curriculum at KS3. It is hoped that this will support students to progress to a range of design / engineering or practical courses at post-16 or post 18. Design thinking as an approach has been evolved at IBM as a general approach to structured problem solving. It involves consideration of a brief, evaluating user needs, collaborating over design principles, evaluating and refining

The curriculum delivery of the KS3 DT curriculum therefore includes:

- Mapping the KS3 NC across Maths / Science / Art & Graphics
- Using Print-lab software to teach Computer Aided Design using 3D printing (off timetable workshops and self-directed learning using **tinker-cad software**)
- Running off timetable workshops in Design Thinking (Resourced by IBM)
- Supplementary practical sessions in Food/Nutrition run in Enrichment Week at Ealing, Hammersmith & West London College.

The Art and Design mapping table usefully summarises where, within Art, Graphics, Maths, Computing and the bespoke DT workshops, each aspect of the design curriculum is taught.

This follows a similar logic to our approach to food technology, where cooking, nutrition and health components are explored through both the science curriculum and specific workshops, utilising our partnership with a local college, giving students access to kitchens and equipment to apply these principles.

The combination of wider curriculum, combined with the DT workshops and an approach to self-guided learning using the IBM programme 'Skills Build', means that all students will have studied and developed the design technology skills as well as improving their general digital literacy .

The pilot Design Thinking workshop modules have been designed by a DT curriculum expert currently working alongside Pearson Education and have the following shape:

- Launch assembly. Specific problem and new context
- Specialist lesson to introduce new design programme TinkerCAD
- Self-guided learning (creation and manipulation of 3D objects)
- Specialist Design Workshop "Design Thinking" – Brief, design criteria and stage of development (physical models)
- CAD independent work
- Design Workshop "CAD" – Evaluation of prototypes, testing of concept and evaluation of design brief
- Final design completion and production

Timeline:

- Nov – March : Pilot of the Design Thinking approach is taking place in 2022-23 at Ada Lovelace and Twyford
- March – May : Review at Curriculum committees of all four schools
- Late May : Recommendations to LGBs & Directors on Trust-wide approach for 2023-24

Appendix 2 : KS3 DT Audit

KS3 DT Curriculum Overview

Colour code for which subject the coverage relates to – ART, SCIENCE, MATHS, COMPUTER SCIENCE, D&T project

Art & Design Technology	Year 7				Year 8			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Use a range of techniques to record their observations in sketchbooks, journals and other media as a basis for exploring their ideas	Natural forms observational tonal drawing **Karl Blossfeldt**	Artist research **Andy Goldsworthy** research Intro to Collage Pastel Watercolour Tone	Portraits / Collage /Painting **Federico Babina** Artist research **Picasso** Weeping Women Cubism Photomontage	Drawing/ Oil pastel/ Proportions **Sarah Graham Derek Stroup**	Still life linked to History and symbolism	Crazy Creatures Linked to Flammables	Roy Lichtenstein	Pop Art linked to school production
Use a range of techniques and media, including painting	Introduction to formal elements focus on Tone	Formal Elements continue with a focus on Collage, Pastels, watercolour and Tone	Facial features taught Watercolour focus and refined	Oil pastels and colour pencil		Independent design Sewing		Block colour Typography
Increase their proficiency in the handling of different materials	A mixed media leaf is created using paint, tone, collage and oil pastel	Students create instillation art using photography to document this	Photomontage	Collage with sweet wrappers	Heating and cooling – materials that are thermal conductor /insulator		Paint Pen Electricity – materials that are electrical conductors /insulators	
Analyse and evaluate their own work, and that of others, in order to strengthen the visual impact or applications of their work	visual examples of levels for students to visually see the standards and guidance WWW and EBI at the end of every lesson	visual examples of levels for students to visually see the standards and guidance WWW and EBI at the end of every lesson	visual examples of levels for students to visually see the standards and guidance	visual examples of levels for students to visually see the standards and guidance	visual examples of levels for students to visually see the standard	visual examples of levels for students to visually see the standards and guidance	visual examples of levels for students to visually see the standards and guidance	visual examples of levels for students to visually see the standards and guidance

Art & Design Technology	Year 7				Year 8			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Introduction to science – equipment drawing		WWW and EBI at the end of every lesson	WWW and EBI at the end of every lesson	and guidance WWW and EBI at the end of every lesson	WWW and EBI at the end of every lesson	WWW and EBI at the end of every lesson Electricity – circuit diagrams	WWW and EBI at the end of every lesson
Design - use research and exploration, such as the study of different cultures, to identify and understand user needs	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work. They select from a range of artists	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work. They select from a range of artists	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work. They select from a range of artists	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work.	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work.	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work. Chemical reactions – linking reactivity to contexts e.g. acid rain.	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work.	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work.
Design - identify and solve their own design problems and understand how to reformulate problems given to them	Introduction to science – methods Problem solving taught throughout	TinkerCAD project Problem solving taught throughout	Problem solving taught throughout	Problem solving taught throughout	Problem solving taught throughout	Design unique personal felt creatures Problem solving taught throughout	Electricity – fault finding in circuits Problem solving taught throughout	Problem solving taught throughout
Design - develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations		TinkerCAD project					Chemical reactions – electrolysis /electroplating	

Art & Design Technology	Year 7				Year 8			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Design - use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses		TinkerCAD project						
Design - develop & communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools	Introduction to science – equipment set up drawings Digital Literacy – using spreadsheets to model and predict Digital Literacy Using charts to analyse data	Organs and health – microscope drawings TinkerCAD project				3D drawing, plans and elevations	Electricity – circuit diagrams	
Make - select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture	Every practical	Every practical TinkerCAD project	Every practical	Every practical Measuring / drawing angles and constructing triangles	Every practical	Every practical	Every practical	Every practical
Make - select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties								
Evaluate - analyse the work of past and present professionals and others to develop and broaden their understanding	Artist One research completed Students reflect on what they have learnt from the artist and apply this to own work.	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work. TinkerCAD project	Artist Two research completed Students reflect on what they have learnt from the artist and apply this to own work.	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work.	Artist Three research completed Students reflect on what they have learnt from the artist and apply this to own work.	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work. Periodic table – generation of modern periodic table	Artist Four research completed Students reflect on what they have learnt from the artist and apply this to own work.	Artist research completed Students reflect on what they have learnt from the artist and apply this to own work.

Art & Design Technology	Year 7				Year 8			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Evaluate - investigate new and emerging technologies		TinkerCAD project Using a scientific calculator						
Evaluate - test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups		TinkerCAD project Designing software for to meet a requirement						
Evaluate - understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists		TinkerCAD project						
Technical knowledge - understand and use the properties of materials and the performance of structural elements to achieve functioning solutions	Matter – changing of state	Fuels – energy releasing		Acid and bases – use of acids and bases	Heating and cooling – thermal conductivity		Electricity – electrical conductivity	
Technical knowledge - understand how more advanced mechanical systems used in their products enable changes in movement and force						Forces – moments Rates of change	Angle facts	
Technical knowledge - understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]							Electricity	
Technical knowledge - apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].			Microbit programming which includes using microbits to create a range of computational programs				Microbit programming building on the year 7 unit to include accelerometers on the micro-computer	

Appendix 3: TCEAT Curriculum & Assessment Overview: *subject*

N.B. This appendix is repeated in the Assessment Policy

Course description and overarching aims (Intent)

(Why does your subject deserve its place at the curriculum table?)

Curriculum model overview (Implementation)

How is our curriculum planned and why:

(This might be building on the same themes each year, a spiral curriculum revisiting topics in greater depth, a matrix of core skills with more complex components each year. Thinking of a few key syllabus components, recurring themes or topics, big ideas, strands)

Three tiers and three outcomes

Our curriculum is structured so that all students can access the appropriate level of support and challenge. There are three tiers (Core, Higher, Advanced) which cover the same material at increasing levels of challenge. All lessons have three differentiated outcomes (labelled Gold/Silver/Bronze) at KS3 and KS4. These allow the students to have a high ownership of his/her learning and a sense of purposeful progression. This means not only is it possible for all students to learn the same key content at a level appropriate to their current understanding, but it also allows students to move between tiers at any point with ease.

Example:

LESSON OUTCOMES	CORE TIER	HIGHER TIER	ADVANCED TIER
XXX	Bronze		
XXX	Silver	Bronze	
XXX	Gold	Silver	Bronze
XXX		Gold	Silver
XXX			Gold

Assessment Objectives:

We have overarching objectives which summarise the skills covered, or the handling of content involved. The internal school assessment system has integrated assessment objectives so that students can be aware of and consciously work on the different strands of content and

Appendix 3: TCEAT Curriculum & Assessment Overview: *subject*

N.B. This appendix is repeated in the Assessment Policy

skills within the subject /course. The internal school system uses the same objectives from Year 7 to Year 13 so that students can build the habit of subject specific self-review as a continuous process from KS3 to KS5

(Subject AOs)

	Year 7	Year 8	Year 9	Year 10	Year 11
Advanced	AO1: 50% AO2/AO3: 50%	AO1: 50% AO2/AO3: 50%	AO1: 40% AO2/AO3: 60%	AO1: 40% AO2/AO3: 60%	AO1: 40% AO2/AO3: 60%
Higher	AO1: 60% AO2/AO3: 40%	AO1: 60% AO2/AO3: 40%	AO1: 50% AO2/AO3: 50%	AO1: 40% AO2/AO3: 60%	AO1: 40% AO2/AO3: 60%
Core	AO1: 70% AO2/AO3: 30%	AO1: 70% AO2/AO3: 30%	AO1: 60% AO2/AO3: 40%	AO1: 50% AO2/AO3: 50%	AO1: 50% AO2/AO3: 50%

Knowledge:

- Substantive knowledge - The main categories that account for the accepted conventions and facts of our subject:
  (What does the substantive knowledge of your curriculum cover in very broad strokes)

- Disciplinary knowledge - The main subject skills, procedures, thinking structures and behaviours of our subject such as:
  (What do students need to learn to do to become a Subject-ian/ist/ologist)

- Disciplinary Literacy - *(What are the literacy milestones students should be meeting as they progress through your subject)*

- Subject specific knowledge structures - ***Don't add in just because it was mentioned somewhere, we would rather stick to clearer Substantive and Disciplinary across all subjects, but*** *if there are ways in which you categorise knowledge that are useful to share because (**and only if) you use them as an integral part of your subject curriculum model**, here is the place for them, otherwise this bullet point can be deleted.*

Curriculum seven-year plan: *(indicate within this document, or within the individual course overviews, **what KS2 learning** is being built upon – looks at Maths and Science for examples of this)*

Appendix 3: TCEAT Curriculum & Assessment Overview: *subject*

N.B. This appendix is repeated in the Assessment Policy

The *subject* curriculum is designed to converge at key points throughout the academic year. *Subject* students will follow

the TCEAT curriculum as mapped below: (Delete this line if you do not have one overall model)

OR

a curriculum map specific to their school. You can find individual course overviews for each school here:

[Ada Lovelace] [Ealing Fields] [Twyford] [William Perkin] (Delete these lines if you do not have different school models)

Approaches to learning.

(Subject specific pedagogy, approaches to learning key knowledge, application of disciplinary knowledge, how students will access the curriculum and how your subject teaches the identified components – how you use KOs, how you promote retention and recall, how you give students opportunity to practice)

Assessment

The Trust assessment policy is central to support the 10:10 ethic which informs the ethos of all of the Trust's schools. Effective assessment allows students to know when and how they have done well, it identifies areas of weakness and supports students to know where they have got to improve. The school assessment system is entirely formative as all assessments are designed to be diagnostic for both the students and the teacher, designed to provide information on progress and provide feedback on areas for improvement as part of a feedback loop. The delivery of the curriculum in all subjects allows for a range of assessment activities including:

AfL – Assessment for Learning

Afl is critical to learning. Throughout each lesson students will be given opportunities test their understanding and give their teacher opportunities to identify issues and correct misunderstandings on the spot. All teachers utilise strategies to ensure they can assess whole class progress rapidly & target support within lessons. These strategies include the use of mini whiteboards, green pens (used to distinguish student

Appendix 3: TCEAT Curriculum & Assessment Overview: *subject*

N.B. This appendix is repeated in the Assessment Policy

self-marking /correction from that of the teacher), self-assessment, peer-assessment, circulation, live marking using a visualiser and various types of questioning. *(Any examples of subject specific common tasks, styles, afl techniques or other that are built into lessons)*

Prep

Prep is designed to support learners to retain and retrieve information therefore strengthening long-term memory. Preps are short tasks, no longer than 15 minutes in length, set each lesson with a due date of the next timetabled lesson. This work is to be completed outside of the classroom (at home or in study club) and is designed to consolidate learning and prepare students for their next lesson. *(Any subject specific prep routines)*

Standardised assessments

These are longer tasks designed to provide students with a chance to applying work from several lessons. These may be done as homeworks or in class. *These tasks will be in place of prep and have an extended deadline as they will take students longer to* complete. *(Delete amend or edit previous sentence for your subject specific routines)*

(Add detail of how they are marked – Self, peer, teacher, online etc)

Quarterly assessments

At fixed points throughout the year students sit exams in a formal setting.

Twice per academic year (December Q2, June Q4) students will sit assessments that take the form of formal exams and examine cumulative skills and content acquisition. These milestones are opportunities for students, staff, parents & carers to take stock of progress and performance at this point. We then have the information and feedback needed to take the next steps in their learning. *(Any subject specific frameworks or styles of QA)*

Add subject tables based on Trust assessment Dates and Deadlines 2023-2024 document

Appendix 3: TCEAT Curriculum & Assessment Overview: *subject*

N.B. This appendix is repeated in the Assessment Policy

Feedback routines.

Students are given feedback throughout the school year so they can improve.

In lessons students will regularly use their mini whiteboards to show their answers and give teachers the opportunity to correct misconceptions. Teachers use a variety of questioning techniques such as no hands up questions, the use of thinking time (e.g. Pose-Pause-Pounce-Bounce), pair talk (e.g. Think-Pair-Share), No opt-out (e.g. reframing the question to the same pupil) and follow up questions (e.g. asking pupil to elaborate, or avoiding paraphrasing pupils- instead pushing for the 'best version' answer). This allows teachers to adapt teaching as necessary.

Formal assessments and Quarterly assessments will be followed by feedback and opportunities to re-check understanding. This will include time for the student to respond to their feedback, time for the teacher to immediately address any significant misconceptions/errors in student understanding, a follow up task or prep that allows students to build on the feedback given and time for students to update their progress tracker at the front of their books. In *subject* (*Add subject specific feedback practice here)*

External examinations.

KS4 exam board: *(Add)*

KS5 exam board: *(Add)*

Additional qualifications: *(Add – other level 2/3 qualifications can be added here or in the KS4/5 sections as appropriate)*

Other considerations or context? (anything here which is a particular issue to your subject, eg Music, school specialisms, language/music scholars)