Curriculum Handbook

Contents

What do we mean by curriculum?

The curriculum is one of, if not the most important thing, that we can devote time to in our schools. Historically, it is generally accepted that the term 'curriculum' was first used in Scottish universities during the 17th Century. At the time, the term denoted a programme that students were required to study. Since then and at a basic level, we can take curriculum to be the *what* of teaching. The subjects, topics, people and places that end up populating lessons. In this sense, it is distinct from the pedagogic *how* of teaching which can be defined as the means of communicating the curriculum in the classroom.

The *what* is vitally important in producing students who are both academically and socially successful. Understanding much of our society and the modern world is based on a rich knowledge of subject disciplines. To guarantee that our students have this understanding, we, as teachers and subject specialists, must teach them that knowledge. A strong curriculum is an instrument of social justice and social mobility for our students and a curriculum based upon knowledge will allow our most disadvantaged students to bridge the gaps in their learning. A strong curriculum is based upon the context of that particular institution and is clearly underpinned by a purpose and vision.

As leaders, we must, to some degree, adhere to the National Curriculum. The National Curriculum is a starting point, but it is not a curriculum map of *what* to teach, *when* to teach it and *how* to teach it. Though it also focuses on the *what*, it is essentially a list of what the government and various education bodies want children to learn. A curriculum is a very specific artefact or tool of learning that is distinct to a given subject in a given school. This knowledge is selected and chosen by us and so represents an exercise in power. Leaders make a conscious decision of *what* and *when* knowledge is taught and sequenced into a curriculum. Students taught lots of knowledge without good organisation of that knowledge will not benefit as much as those who are explicitly shown how to arrange their new knowledge and signposted how it fits into existing schema from prior knowledge.

At a basic level, the curriculum is the content that is taught to children in school. This content is dictated by time as we cannot teach everything in a chosen subject and we are bound by the limits of the school day, subject allocations and the calendar. Therefore, the curriculum is content structured over time. However, a common pitfall with designing a curriculum is that it can become a mere list of the National Curriculum topics. If this is the case, the knowledge and skills gained within a curriculum are shallow and weak as the connections between topics are not deep and meaningful and the placement of these topics onto a curriculum map hasn't required deep thinking. To further our definition, **the curriculum can then be seen as content structured as narrative over time**. We need to ensure students are explicitly aware of the connections within our curriculum and that mastery is achieved of the key knowledge and skills before progression is made through the curriculum journey. It is vital that knowledge is connected and is built upon across the curriculum to ensure coherency. With this in mind, the curriculum is an interconnected journey that is **knowledge-driven, but skills orientated**.

The curriculum in Maths, Science, History and English may share content and concepts along the way. However, the way that each subject deals with this content and concepts will be unique to these subject disciplines. We should embrace the subtleties and nuances of each subject and curriculum planning should be driven by the subject specialists. Subject teams should be clear on *what* they are teaching and *why* they are teaching it. Ultimately, their curriculum should be a coherent narrative, that builds on previous learning, to make more difficult knowledge acquisition possible later.

For each subject, teachers should know and be able to articulate:

- The purpose and rationale of their school's and subject's curriculum providing students with a sense of purpose for learning which can aid effort and motivation.
- The principles and values that underpin their curriculum (and how these link to the whole school curriculum principles and values).
- What their expectations are for student learning by the end of a unit, academic year, key stage etc.
- What the concepts and themes are that will be revisited throughout the curriculum narrative.
- What the core content is that all students need to have a solid grasp of at each stage of the journey (each unit, academic year or key stage etc.) It needs to be specified so that every student is taught it.
- How and why content has been selected and sequenced so there is coherence.

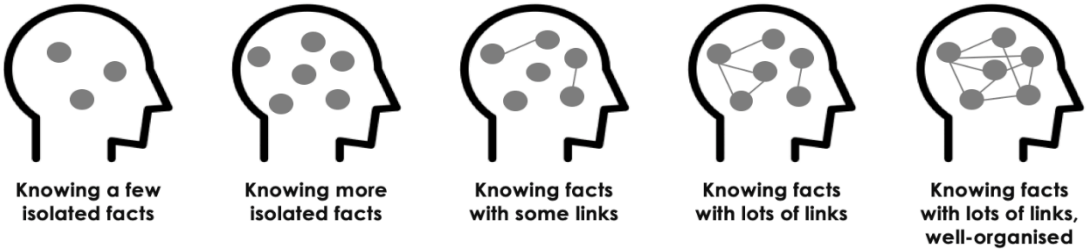
In each subject, **knowledge is a pre-requisite for skills, which are subject dependent**. Many schools and leaders have described their curriculum as being 'knowledge-rich':

- Knowledge provides an underpinning philosophy.
- Knowledge is specific in detail with thoughtful selection.
- Knowledge should be taught to be remembered, not merely encountered.
- Knowledge is sequenced and mapped deliberately and coherently.

When thinking about the curriculum, we must also think about how we will assess the quality of learning of the curriculum content. When selecting our assessment system, it must accurately reflect the content of the curriculum and avoid using proxies that suggest pupil progress, rather than accurately identifying what has and has not been learnt. Our assessment systems should not unduly be influenced by summative assessments (GCSEs, BTECs, A Levels etc.) so that we attempt to

recreate those assessments, when assessing successful learning of the curriculum content. In summary, **the curriculum is the progression model**. This will prioritise the following:

- Each unit of work should have a proximal role (achieving something in its own right) and an ultimate role (laying the foundations for learning further down the line).
- Units are bound together by concepts and themes for coherence.
- Units are sequenced in a deliberate way so knowledge is built over time.
- New knowledge is attached to schema (network of related knowledge to allow information to be remembered quicker) to speed up the learning process.
- By the end of KS3, students have a deep knowledge of the subject and know lots of things (declarative knowledge) and are able to do lots of things with this information (procedural knowledge).
- By the time we introduce KS4 content, we are adding to existing frameworks of knowledge and leaning on what students already know.



What does Ofsted say about the curriculum?

From September 2019, the Education Inspection Framework (EIF) that Ofsted use changed to reflect a more explicit focus on curriculum at a whole-school and subject level.

- Ofsted inspectors will not be looking for schools to deliver an approved curriculum model or content.
- Ofsted use the terms 'Intent, Implementation, Impact' to describe the three states that the curriculum goes through in a school. It is conceived, taught, and experienced and these three stages are connected.
- In Ofsted's view the end result of a **good, well taught curriculum is that pupils will know more and are able to do more**. Intent, implementation and impact are never to be treated as separate, disconnected sub-judgements.
- There is no expectation from Ofsted to write an 'intent' statement, but it will show that the academy has really thought about the design of its curriculum. It can then also be widely shared with all stakeholders.
- The intent in individual subject curricula should show what exactly it is that students should know at different points of their education. Knowing what they learn (and perhaps more importantly, what they don't learn) and why they learn it, shows a good grasp of the curriculum intention.

Intent

- The curriculum that is ambitious and designed to give all learners, particularly the most disadvantaged and those with special educational needs and/or disabilities (SEND) or high needs, the knowledge and cultural capital they need to succeed in life (this is not restricted to examination outcomes).
- The provider's curriculum is coherently planned and sequenced towards cumulatively sufficient knowledge and skills for future learning and employment.

- The provider has the same academic, technical or vocational ambitions for **almost all learners.** Where this is not practical the curriculum is designed to be ambitious and to meet individual needs.
- Learners study the full curriculum. Providers ensure this by teaching a full range of subjects for as long as possible, 'specialising' only when necessary (no timeframes are specified by Ofsted, but the academy should have a clear rationale for why subjects are dropped at certain points and why the students dropping those subjects will not be disadvantaged by dropping them).

Implementation

- Teachers have good knowledge of the subjects they teach. Leaders provide effective support for those teaching outside their main areas of expertise.
- Teachers present subject matter clearly, promoting appropriate discussion about the subject matter they are teaching. They check learners' understanding systematically, identify misconceptions accurately and provide clear, direct feedback. In doing so, they respond and adapt their teaching as necessary, without unnecessarily elaborate or differentiated approaches (differentiating the curriculum is seen as giving some students an impoverished curriculum).
- Over the course of study, teaching is designed to help learners to remember in the long term the content they have been taught and to integrate new knowledge into larger concepts (Ofsted view learning as a change in long term memory and their definition of progress being knowing more and remembering more).
- Teachers and leaders use assessment well, for example to help learners embed and use knowledge fluently or to check understanding and inform teaching. Leaders understand the limitations of assessment and do not use it in a way that creates unnecessary burdens for staff or learners (Ofsted expect no set form of assessment, just that it assesses what has been learned over a period and fits the curriculum rationale for the subject and school. They will not ask to see internal data to support judgements).
- Teachers create an environment that allows the learner to focus on learning. The resources and materials that teachers select – in a way that does not create unnecessary workload for staff – reflect the provider's ambitious intentions for the course of study and clearly support the intent of a coherently planned curriculum, sequenced towards cumulatively sufficient knowledge and skills for future learning and employment.
- A rigorous approach to the teaching of reading develops learners' confidence and enjoyment in reading. (This is also looked at in secondary, the teaching of subjects should support confidence and enjoyment in reading. It should not be a 'bolt-on' exercise, but integrated into the curriculum).

Impact

- Learners develop detailed knowledge and skills across the curriculum and, as a result, achieve well. Where relevant, this is reflected in results from national tests and examinations that meet government expectations, or in the qualifications obtained.
- Learners are ready for the next stage of education, employment or training. Where relevant, they gain qualifications that allow them to go on to destinations that meet their interests, aspirations and the intention of their course of study.
- They read widely and often, with fluency and comprehension.

The most important thing, for all staff, is that they are knowledgeable about the content and rationale behind their subject's curriculum, and how it suits the needs of the students in that school's context.

What is the research around the curriculum?

E.D. Hirsch – Professor emeritus of education and humanities, University of Virginia

Hirsch is an advocate of the core knowledge curriculum. Hirsch's ideas are based around the notion that students are entitled to knowledge and that the curriculum should be based around an idea of 'minimal content' that students should be required to know. This means named knowledge content, for example, specified literary texts in English. This manifests itself as list of facts, terms and knowledge points that all students should know and should be able to recall readily from memory. Hirsch is critical of skills like critical thinking being defined as 'higher order' than knowledge. He argues that to think critically, you must first have a deep knowledge of a subject. Hirsch states that skills are actually procedural knowledge, that come from a rich understanding of substantive knowledge that has been learnt first. The more you know, the deeper your critical thinking. He also argues that students with a wide knowledge base will be able to decode text and be a more fluent reader, than one that has been taught generic skills.

Hirsch sees education as a tool of social justice. Hirsch is critical of allowing students (or novices) to discover knowledge using the internet. He says that 'You cannot become an instant expert. Google rewards those who already have knowledge'. Hirsch believes that schools have a moral responsibility to teach a knowledge driven curriculum because we can't rely on the 'invisible hand' to give students that knowledge through chance. Hirsch believes in assessment that checks whether curriculum content and knowledge has been learnt and that assessments should be explicitly based on the curriculum being taught. Critics have argued against E. D. Hirsch because they feel he has reduced learning to a checklist of facts. He has also been criticised because by prescribing what knowledge is taught, it can be argued that the person who selects that knowledge is all powerful and that this preserves the status quo and does not achieve the aims that Hirsch set out, namely that education is a tool of social justice.

Michael Young – Emeritus professor, Institute of Education, University College London

Young also believes in a knowledge-led curriculum, but his approach differs slightly from Hirsch's. He agrees with Hirsch that knowledge is an entitlement, but he believes that schools should teach knowledge that takes students beyond their own experience ('powerful knowledge'). Young argues that the focus of curriculum has been corrupted, so that schools over-emphasise a focus on pupil attainment for the sake of the grade rather than the powerful intrinsic value of education. Young believes that a curriculum should provide access to knowledge that takes students beyond what they can learn every day. The struggle in acquiring this knowledge is an essential part of the curriculum. Young says that schools are fearful of teaching this knowledge and therefore close off access to it for some students by labelling them 'non-academics'. This leads to an impoverished and dumbed down curriculum for some students by lowering expectations of them. Young says these are 'slow learners' and not learners who are academically weak, they can learn the same things as fast learners.

Young believes that selecting this 'powerful knowledge' comes from the knowledge of subject experts. He also believes that knowledge is subject specific and subject definitions are important. Young believes that knowledge is fallible and open to question, so knowledge cannot just be a list of facts (as Hirsch subscribes to). Young believes that the curriculum needs to be taken out of the hands of politicians and senior leaders and given back to the experts in the subject field, the subject teachers. Critics have said that Young brings the purpose of education down to the pursuit of knowledge and nothing else.

Daniel Willingham – Professor of Psychology, University of Virginia

Willingham is a cognitive scientist and links his ideas for curriculum design to cognitive science and link between memory and thought. Based on a large body of research, cognitive scientists have established that humans have a limited working memory but an expansive long-term memory. The more we are able to commit to long term memory, the more challenging concepts we can focus on with our working memory. He has coined the phrase 'memory is the residue of thought' and that a curriculum should provide work that requires students to think. Willingham argues for the importance of sequencing of content, so long term memory is built up and working memory is not overloaded. He advocates interleaving, spaced practice and retrieval in curriculum design to revisit key knowledge.

Willingham believes that curriculum content should be based on knowledge that yields the greatest cognitive benefit. His research shows that any thinking skills can only grow from a body of knowledge. For Willingham, factual knowledge must precede skill. Willingham advocates teaching background or domain knowledge to help children become better readers.

Critics have focused on cognitive science being a very new field of science and that there is a difference between the lab and the classroom. Most of what we know about cognitive science has been discovered in the last 25 years. The strength of his argument can only grow or weaken, the more people test his theories in the classroom.

Dylan Wiliam – Emeritus Professor at the Institute of Education, University College London

Wiliam is best known for writing *Inside the Black Box* with Paul Black and Bethan Marshall in 1998, which focused on formative assessment. He has also written two influential pamphlets on curriculum and assessment design for the SSAT. Wiliam has argued for reducing curriculum and developing formative assessment. He has been critical of high stakes testing as it dominates and skews teaching.

Teachers only focus on what it takes to get the best marks rather what is ultimately the best for the pupil.

Wiliam argues that curriculum should be designed backwards from an end point. Wiliam stresses the importance of curriculum sequencing and basing this around the 'logic' of a subject. He is an advocate of designing curriculum around the 'big ideas' of a subject. He argues curriculum will work differently, for different schools, but that all assessment should be assessment for learning. Wiliam says that assessment should be used to make inferences about a student's engagement with the curriculum as a learning progression or pathway, with assessment as a checkpoint along the way.

Wiliam focuses on test design and what conclusions can be drawn from tests. He states that you have to consider 'the extent to which a test measures what it claims or purports to measure'. An important part of curriculum design is thinking about what types of assessment you want to use to report back accurately on how well the curriculum has been imparted. Wiliam advocates well thought out multiple-choice questions as an excellent diagnostic tool to test learning.

Critics of Wiliam have focused on how AfL has been oversimplified and turned into a classroom gimmick, rather than it being a genuine assessment. His focus on streamlining content has been criticised by those that believe that a body of knowledge is central to a strong curriculum.

Daisy Christodoulou – Director of Education, No More Marking

Christodoulou is an advocate of a knowledge-driven approach to curriculum, assessment to support this curriculum and pedagogy that is based around developing memory. She has also worked on assessment in the 'life after levels' world. She has dealt with the 'adverb problem' where a range of adverbs have been used to assess how students are achieving. She has outlined the problems of differing teacher understanding of these adverbs when marking, which leads to issues of impartiality, consistency and accuracy in marking. She has a developed a method called comparative judgment to avoid the adverb problem.

Christodoulou is also an advocate of different types of questions, especially multiple-choice questions to help students remember information. She is also a critic of progress measures and target-based system. Her logic is that as soon as a measure becomes a target it loses all value as a measure. Teachers skew their curriculum content to the test, meaning the curriculum becomes content free and focused on teaching to the test, rather than assessment being about moving students forward.

Critics have suggested that multiple-choice questions do not allow the expression of more complex knowledge that extended writing allows.

Tim Oates – Group director of assessment research, Cambridge Assessment

Oates led a review of the National Curriculum as part of an expert panel in 2011, which led to the most recent rewriting of the National Curriculum and the end of National Curriculum levels. This panel identified that curriculum control and curriculum coherence were features of high performing jurisdictions like Singapore. He advocated a list of essential elements for subjects to ensure stability and consistency rather than constant review and update. The report also advocated depth of learning rather than breadth of learning.

Oates' panel criticised how schools used National Curriculum levels to move students on quickly through the levels rather than assessing whether they had secured key ideas, concepts and knowledge. Levels were awarded when students had not completely grasped all the components. Oates has argued that there is not enough of the right kind of assessment. He believes assessment should probe the big ideas of a curriculum and be supportive of learning.

Critics have been against the idea of a prescribed curriculum because it takes away from the teacher's ability to innovate. There is also lots of disagreement over who should prescribe the curriculum content.

Ron Berger – Chief Academic Officer, EL Education

Berger is known for his work on pupil feedback and the use of specific critique and re-drafting to produce work of 'excellence'. Berger also believes in using real life contexts to motivate students. It is his work on feedback focusing on expecting more from students, which has been most widely distributed and shared. Berger also focuses on using model exemplars both for students and teachers. He stresses that these should be specific and focus on one quality at a time to help students reach the level of 'expert critic'. His advice for critiquing can be summed up as: be kind, specific and constructive. This form of feedback is particularly useful when it comes to thinking about the implemented curriculum, including the use of gallery critiques as part of formative assessment.

Berger is less keen on the use of frequent testing or of 'teacher proof curriculum' subscribing to the philosophy that 'testing children constantly doesn't make them smarter'. Berger outlines a more long-term approach to building 'an ethic, a culture, which supports and compels students to try and succeed.'

Critics of Berger have focused on his support for cross-curricular projects and real-life contexts, saying that this downplays the importance of subject disciplines. Others have argued against his criticism of high stakes testing and have argued that testing needs to be more frequent.

Carol Dweck – Professor of Psychology, Stanford University

Dweck's big idea is growth mindset, which can be a powerful influence when developing a new curriculum. Dweck's ideas challenge the concept of fixed ability, arguing that mindset limits our potential. Teachers and students need to develop a growth mindset, rather than a fixed mindset about pupil potential. The growth mindset embraces challenge and sees this as learning/development; you can learn from failure. Those with a fixed mindset struggle with failure and see this as a setback.

If students can develop their abilities, then the same curriculum is appropriate for all. Dweck says it is the 'how' of teaching students rather than the 'can I teach them?' that is important. Dweck gives examples of teachers who have taught high challenge material to students who have been assumed unable to cope with it because of the background or attainment. She warns against the danger of dumbing down the curriculum. Dweck says teachers should work on the assumption that any pupil can achieve and that this is done through a mixture of an atmosphere of high challenge and the feeling of being nurtured.

Dweck's ideas also make us think about assessment and the consequences of labelling students. Formative assessment is seen as being key as a way of learning from failure. Dweck believes it is the way we respond to the exam that makes us carry the belief of stupidity rather than then exam itself. If assessment is driven by curriculum and offers an opportunity for students to grow, we will get more from our students. Dweck agrees with Wiliam that assessment should be ongoing and not just about one moment. It should also allow us to make inferences about whether learning can apply to other contexts.

There has been a growing concern that Dweck's work has been reduced to motivational posters and messages in assemblies, rather than as part of a whole school ethos that permeates all areas. Some have argued that that genetics do have a role to play in pupil ability and that Dweck's work is idealistic and does not consider real problems for disadvantaged students.

Curriculum Glossary and Terminology

Articulation	Articulation is sequencing across key stages *and/or* across subjects. For example, in maths and science students may come across the use of graphs at multiple points in their learning.
Cognitive load theory	Developed by J. Sweller (1994) and stresses the limits of memory in learning. Teachers should aim to reduce cognitive load by drawing on prior knowledge and logically sequencing episodes of learning so they accumulate in small stages, securing understanding at one stage before moving on to the next. This allows students to move knowledge to their long-term memory, which is limitless, and freeing up working memory, which is finite.
Coherence	The knitting together of knowledge in the curriculum so that seemingly disparate units of work are connected by thematic and conceptual threads.
Components	The parts or substance that make up the curriculum, either substantive or disciplinary knowledge. Components should be considered more carefully than the composite in curriculum design. This links heavily to the types of knowledge within the curriculum.
Composites	The joining together of components to produce an outcome. Christine Counsell warns of the danger is that the end-product of a curriculum e.g. an exam, dictates the components unduly. For example, in maths students can study problem solving as this is on the final exam, but do not give enough attention to the underlying mathematical knowledge to solve the problem. Daisy Christodoulou, uses the analogy of training for a marathon. The best marathon runners do not run lots of marathons in training. They vary their training and focus on the building blocks (the components) that make a great marathon runner, not just the end product (the composite) of running 26.2 miles.
Curriculum map	A concise but detailed overview that outlines the narrative direction of the curriculum. Writing things down forces the curriculum designer to think. This will highlight and codify the main strands, themes, threshold concepts and core knowledge in the curriculum, producing a minimum guarantee of what every learner should expect and teachers will provide in the enacted curriculum. It will provide details of what students should be able to know and do at different stages of their journey through the curriculum. This map will be supported by more detailed long and medium-term planning in schemes of learning and the curriculum map does not replace these. The map is the starting point that other planning is based on and linked to. Conversations outside of the department, for example within the senior leadership team, are supported by these documents, sharing in a visible representation the vision and direction for the subject.
Interleaving	Interleaving is the process of mixing different topics and skills together whilst learning. Most often, it is either the mix of different subjects, like maths and chemistry, or the mix of old and new material. By mixing up the content, the brain makes more sense of the context of what has been learnt.

Knowledge Organiser	This is brief document that sets out clearly the core knowledge that every student needs to know and remember (so it becomes fingertip knowledge). It is not a revision guide and for each unit taught it should not exceed more than two sides of A4. It should be limited to things like names, dates, definitions of key terminology, simple diagrams. It is meant to be remembered and referred to regularly. What is included will probably only amount to about 20% of the total that students will learn, but it the core knowledge that means accessing future learning is possible.
Learning	Knowing more and remembering more. If nothing has been remembered, then nothing has been learnt. Learning is an alteration in the long-term memory.
Meaningful interdisciplinarity	The interplay of knowledge between related subjects. When students encounter similar concepts in different contexts, it makes it more likely to be remembered and the understanding becomes better. Being aware of where this interplay happens between subjects in a curriculum means that we can signpost these for students and avoid misconceptions or a belief that concepts are exactly the same in each context. For example, graphs are used in maths, science and geography but in different ways. Understanding where else it is taught, does not mean diluting each subject's curriculum to fit another subject's.
Retrieval	Retrieval practice is the act of trying to recall information without having it in front of you. In recent years, cognitive psychologists have been comparing retrieval practice with other methods of studying—strategies like review lectures, study guides, and re-reading texts. And what they are finding is that nothing cements long-term learning as powerfully as retrieval practice. To aid thinking, that knowledge must be encoded in long-term memory. Retrieval practice is the tool that encodes knowledge in long term memory.
Progress	The extent to which students have learned the intended curriculum. Progress does not happen in individual lesson chunks, but over time. If students are successfully learning the curriculum then they are making progress.
Prototypes	Students use their previous learning and experiences to make sense of abstract definitions. For example, students will have a different understanding of the term 'institution' based on the different types of institutions that they have previously encountered. Understanding that students will have different prototypes and previous learning is central to curriculum design.
Schema/Schemata	The mental framework or models used to represent and organise remembered information. Webs of organised knowledge in long-term memory. We use our schema to learn and think more quickly. The more developed and richer a student's schema, the quicker they can assimilate and learn new information. Schemata are modified as we gain more information. Piaget suggested that cognitive development hinges on an individual acquiring more schemata and increasing the nuance and complexity of existing schemata.
Sequencing	The sequence is the order in which the information is presented to the student. How to sequence the curriculum depends on the development

	of the students cognitively. There are four common sequencing approaches in curriculum design. These are simple-to-complex, prerequisite learning, whole-to-part learning, and chronological learning. Different types of sequencing suit the needs of individual subjects and there is not one superior approach. It is, however, important that students build on and develop previous knowledge.
The curriculum is the progression model	A curriculum sets out the journey that someone needs to go on to get better at the subject, it models the progress we would hope a student will make. Students' successful mastery of what they have learnt on that journey is their progress. If a student has learnt and retained the curriculum; they have made progress (Fordham 2017)
Threshold concepts	A theory developed by Meyer and Land (2003). These are the concepts that underpin our subject and transforms our understanding. Grasping a threshold concept acts to help students not only access the next stage of learning but also reconfigure their prior learning. They act as a gateway to more knowledge and understanding. Mastering threshold concepts will form strong schematic networks for students. They are the 'jewels of the curriculum' and students cannot move on if they have not mastered them yet.

Core knowledge	This refers to the substance of the curriculum that students **must** remember to ensure a secure foundation in their schemata development. Core knowledge is what is vital for students to understand the domain they are being taught currently and in future.
Cumulative knowledge	This is where knowledge is not wholly reliant on students having previously studied a 'certain' topic, which means there are many pathways to mastering the content. This is most commonly seen in aspects of English or History and sometimes is referenced as accumulative knowledge.
Declarative knowledge	Sometimes referred to as propositional knowledge or the 'know-that' of a subject. For example, that the internal angles of a triangle equal 180 degrees. There is crossover between declarative and substantive knowledge, however application is impossible without declarative knowledge. If we want students to evaluate and synthesise, they require declarative knowledge. We cannot know how to do something in a vacuum, we need declarative knowledge first.
Domain knowledge	The knowledge of a specific, specialised discipline or field. Having secure domain knowledge makes you an expert in that field. The domain can be as wide as a whole subject (Maths) or a particular area (how to pass an exam). When designing your curriculum, you must be clear on what the domain is you are teaching.
Disciplinary knowledge	Disciplinary knowledge refers to what students learn about, how that knowledge was established and constructed within the discipline, its degree of certainty and how it continues to be revised by scholars, artists or through professional practice. In some subjects, this is where there is space for judgement making, argument, open-ended challenges and subject thinking.

Fingertip knowledge	Information, facts, rules, names and understanding of important concepts that students can recall at will, with very little thought and demand on working memory. Once this knowledge is entrenched, it provides a solid base that new knowledge can be built upon. For example, students knowing their multiplication tables can provide a basis for learning more demanding maths knowledge because students have embedded this knowledge and don't need to consciously think about it.
Fragile knowledge	When students do not understand, remember or consistently use what they have been taught, which results in an ability to successfully apply this knowledge independently and in different contexts.
Hierarchical knowledge (links to vertical curriculum design)	This means that you cannot teach one topic until students have 'mastered' the prior knowledge - e.g., times tables before fractions.
Hinterland knowledge	This is ALL that content that sits outside the core. It might be about the bigger picture. For example, the full novel. Without acknowledging and using such hinterland, the core (a small passage from a novel) does not have meaning. Hinterland is often what makes knowledge rich and memorable for our students. The core/hinterland definition is not absolute. In one place, knowledge might be core, but later it might become hinterland.
Procedural knowledge	Sometimes referred to as skill or technique, the 'know-how' of the processes required in a subject. For example, map reading in Geography or translation in French. First students must be taught a range of substantive knowledge before they can perform these processes. The procedural knowledge will also need to be explicitly taught and practised to develop this.
Proximal function of knowledge	Each bit of a curriculum has a job to do. The proximal function is how the knowledge from this lesson supports the work planned in the next few lessons/weeks.
Substantive knowledge	The knowledge produced by an academic subject, which is made up of established facts that are uncontested.
Tacit knowledge	Tacit knowledge refers to the knowledge an individual gains through experience that is often difficult to put into words or otherwise communicate. It will not be specified or documented (unlike substantive or disciplinary knowledge) but students will pick it up as a bonus/in addition to the knowledge specified in the curriculum.
Ultimate function of knowledge	Knowledge acquired across a curriculum is durable and has an ultimate function, a future purpose. This knowledge supports students, over time, to develop deeper conceptual understanding. It allows individuals to not only eventually enter disciplinary conversations and debates with confidence but allows students to potentially become knowledge creators themselves in the future.

What is the role of leaders in school?

All SLT need to be involved in curriculum conversations. This includes knowing *what* is taught, *when* it is taught and *what* students will then be able to accomplish. The temptation to reductive interpretation, wholesale adoption and imposition of generic requirements, is appealing, to allow for comparison between different subjects, but it must be resisted.

There should be regular and sustained conversations about the curriculum at SLT level, that are focussed purely on the content and quality of curriculum. Ideally, subject leaders should present the rationale and mapping of their subject to SLT or in line management meetings so that there is a clear understanding of what is being taught and why it is being taught, at a senior level.

Curriculum design and development is a collaborative process. For the best result, as many people as possible must feel ownership and involvement in its creation. Spread out the responsibility and try to engage as many people as possible in the endeavour.

Curriculum documentation

Departments may have the following curriculum documentation to support the articulation of their curriculum:

- Intent statement and departmental vision linked to the whole school curriculum intent.
- Overview Curriculum Map for all year groups/Key Stages with rationale.
- Mapping concepts and themes across Key Stages (this may be included in the Learning Journey's).
- Learning Journey's (this could be seven years or five years and there may be a staff friendly and pupil friendly version).
- Year Group Overviews.
- Assessment Strategy, Plans or policy.
- Covid 'Learning Journey' and adaptations made to the curriculum.
- Literacy and Reading.
- Links to the Ks2 Curriculum.
- Cross-curricular links.

Curriculum questions

These are the questions that should be routinely discussed during line management meetings and in regular conversations with middle leaders and subject experts.

Intent

- How did you design your curriculum? Hierarchical, vertical, knowledge-rich, skills-orientated etc.
- Articulate the intent and vision of your curriculum.
- How are you making sure pupils receive a 'broad and balanced curriculum'?
- Tell me about your department's curriculum journey, including Covid and any adaptations that had to be made and why.
- What is the students' learning journey, do they know it and how do they know it?
- What are the threads (concepts/themes) that run throughout your curriculum?
- What do you want pupils to know, understand and be able to do by the time they leave the school? May also be worded as at the end of each Key Stage.
- How and why do you organise and sequence learning?
- How have you factored the impact of the pandemic into your curriculum sequencing?
- Why do you teach 'X' here (with reference to the curriculum map)?
- How do you make sure the curriculum is carefully sequenced to build knowledge and skills?
- How do you plan to ensure pupils make good progress from their starting points?
- Which areas of your curriculum would you class as strengths and which are areas of development?
- How is your curriculum coverage progressive throughout the school? How does the curriculum get 'harder'?
- How well is the curriculum covered? Could reference the National Curriculum here.

Implementation

- How do you develop, monitor, evaluate and improve the curriculum in your subject area? How do you ensure the curriculum is being properly implemented?
- How effective is teaching in your department? How do you know?
- What resources do you use?
- How do teachers ensure their expectations of pupils are high enough?
- How do you identify and address gaps in pupil knowledge? This might be linked to the return to school, the pandemic and 'catch-up'.
- How do you ensure that your curriculum meets the needs of all learners? How are you ensuring all pupils can access the curriculum?
- How do teachers provide feedback to pupils?
- How do you use assessment in your subject?
- What formative assessment are you using in your subject?
- How do you differentiate and scaffold in your subject?
- How do you support students who are not meeting the expected standards?
- How do you make sure your curriculum gives pupils the opportunity to revise and repeat previously learned material? This could be in reference to memory.
- What do staff and pupils think of your subject?
- How have you used Student Voice in your subject and what have you learnt from this?
- How do you keep your knowledge and leadership of the curriculum up to date? Could reference the Ofsted Research Review documents here.

- How do you use CPD to ensure your staff have the sufficient subject knowledge to teach the curriculum? Is there a coherent plan?
- How do you support non-specialists teachers in your subject?
- How do you ensure the KS3 curriculum reflects/links to what is studied at KS2?
- How do you ensure that KS3 prepares students for KS4 without repeating it?
- How do you teach different types of knowledge in your subject?
- How are cross curricular links made in lessons?
- What did you select from the KS4 syllabus and why?
- How do you know the curriculum is allowing pupils to achieve age related expectations and good outcomes and qualifications?
- How is literacy, reading and numeracy promoted and taught in your subject?

Impact

- Does the curriculum lead to good results in all Key Stages?
- Does learning over time show appropriate levels of challenge?
- How do you ensure knowledge is consolidated and understood?

Students

- *What are you learning about?*
- *How does this fit with what you've learnt about before?*
- *Where is your learning going?*

An investigation into how to assess the quality of education through curriculum intent, implementation and impact

- The **curriculum** is the substance of what is taught with a specific plan of what pupils need to know in each subject and how it is delivered over time.
    - **Intent** – sets out the knowledge and skills at each stage.

- **Implementation** – the way the curriculum is delivered and taught to support building knowledge and to apply this knowledge to skills.
- **Impact** – outcomes as a result of the education received.
- Three I's essentially are **Curriculum, Teaching and Assessment**.

Intent:

Predictor	Indicator
Rationale	● Clear and coherent rationale for the curriculum design. ● Rationale and aims of the curriculum design are shared across the department and fully understood by all.
Ambition	● Curriculum is broad and ambitious and address social disadvantage by equipping pupils, particularly disadvantaged and SEND with the powerful knowledge, skills and cultural capital that they need to succeed in life.
Concepts	● HODs show an understanding of important concepts related to curriculum design, such as knowledge progression and sequencing of concepts. ● Curriculum coverage allows all pupils to access the content and make progress. ● Literacy and reading is prioritised to allow pupils to access the full curriculum offer. ● Mathematical fluency is regarded as a precondition of success across the curriculum. ● *'Making it stick'.* ● *Also a clear focus on the school's context and area.*

Implementation

Predictor	Indicator
Subject leadership	● HODs and department TLR postholders have clear role and responsibilities to carry out their part in curriculum design and delivery.
Subject knowledge	● Subject leaders have knowledge, expertise and practical design to implement a curriculum. ● Leaders at all levels, regularly review and QA the subject to ensure that it is implemented sufficiently well. ● Leaders ensure that ongoing professional development is available for staff and develop curriculum expertise across the school. ● Curriculum resources selected, including textbooks, serve the school's curricular intentions and the course of study and enable effective curriculum implementation.
Equitable delivery	● The way the curriculum is planned meets pupils' learning needs and there is no mismatch between the planned and delivered curriculum. ● Curriculum delivery is equitable for all groups and appropriate. ● Curriculum reflects the school's local context by addressing typical gaps in pupils' knowledge and skills.
Planning progression model	● There is a model of curriculum progression – it is planned and sequenced so that new knowledge and skills build on what has been taught before and towards clearly defined end points. ● Leaders ensure interventions are appropriately delivered to enhance pupils' capacity to access the full curriculum.
Breadth and depth	● The curriculum has sufficient depth and coverage of knowledge.
Assessment	● Assessment is designed to share future learning and is not excessive or onerous. ● Assessment check pupils' understanding in order to inform teaching, and to help pupils embed and use knowledge fluently and develop their understanding, and not simply memorise disconnected facts. ● Assessments are reliable and leaders use systems to check reliability.

Impact

Predictor	Indicator
Assessing Implementation	● Curriculum is successfully implemented to ensure pupils' progression in knowledge – pupils successfully 'learn the curriculum'.
Assessing equitable delivery	● Curriculum provides parity for all groups of students.

- The final additions here are around **Covid** so how has the curriculum been adapted post-Covid and how have any remote learning plans been integrated into the curriculum.