

Heathfield Curriculum: Rationale and Research Appendix

Wider Educational Context:

The purpose of schooling, and therefore the purpose of the curriculum that we teach in schools, is multipurpose.

In differing views of the purpose of education we can see an underlying role for the different subjects that pupils are taught. Academic disciplines make up the subjects of our school curriculum. Each subject delivers both substantive knowledge: the content that teachers teach as established fact and disciplinary knowledge: how that knowledge was established, its degree of certainty and how it continues to be revised by scholars, artists or professional practice¹.

Therefore, the role of the teacher is not to simply reproduce the **academic knowledge** in front of their pupils. Instead the teacher is asked to **recontextualise** the academic discipline and to transform it, through careful topic selection, sequencing, modelling and feedback, into something that pupils can access and make use of. The subject knowledge they gain through being taught the curriculum should serve **multi-purposes when applied**, which might include the ability to think critically about what they know, speak with confidence on different topics and understand their own relationship to this knowledge.

Biesta (2009)² argues for greater attention to the aims and ends of education, a clear purpose and intent is essential in design and implementation of all aspects of the curriculum. The Heathfield curriculum intent and implementation was shaped alongside curriculum leaders through the lens of 7 principles of curriculum as established by Dylan William³: Balance, Rigor, Coherence, Vertical integration, Appropriateness, Focus and Relevance in the context of their subjects and the overall values of the College⁴.

Local Context:

The model of the curriculum at Heathfield is predicated on its context, whilst these factors remain consistent the model has been designed to allow for the greatest balance and breadth whilst retaining depth appropriate for all students. This is reviewed actively every year for its relevance to the demographic of the College and for its impact:

- The primary context for Heathfield Community College is strong. All feeder Primaries are rated Ofsted Good or better, students come into College at or above national average attainment.
- Teacher retention is strong <3% and subject expertise is enhanced by experienced staff equipped with research informed CPL. Teachers are given additional allocated time to co-plan, explore relevant research and apply knowledge to make strong progress.
- Research informed CPL ensures teaching is strong and consistent in approaches, staff work collaboratively to build both their pedagogical expertise applied in a subject context as well as their domain specific knowledge related to their subject. As a result lessons are focused and productive within a calm and purposeful learning environment.

¹ Counsell, C. (2018) *Taking curriculum seriously*. Impact, Journal of the Chartered College of Teaching.

² Biesta, G. (2009). Good education in an age of measurement: on the need to reconnect with the question of purpose in education. *Educational Assessment, Evaluation and Accountability*, 21(1)

³ William, D. (2013). *Principled curriculum design*. SSAT (The Schools Network) Limited.

⁴ ARCHITECTURE OF THE CURRICULUM: https://www.heathfieldcc.co.uk/?page_id=2320030

- Student Demographic: 6% SEND (inc K), 1% EAL, 14% PP. Repeated NHS Studies of young people in this locality have shown mental health, anxiety and self-esteem to be the greatest Health concerns: also referenced in East Sussex Mark Your Mark student voice surveys and Youth Parliament engagement action, reiterated in a 2021 national survey “My health, my school” in which Heathfield participated⁵. Parent and student voice support the curriculum model which spreads the stress induced by examination whilst giving choice to enable students to continue breadth in their study to GCSE and A Level.

The priorities as established in the College Strategic Plan are also considered when planning an approach to the curriculum and its implementation.

- Globalisation and Diversity:
- Post-Pandemic Recovery.
- Employment
- Technology

In all the above there is a clear rationale to the overarching intent of the Heathfield Curriculum:

The Heathfield curriculum vision is one of ambition and breadth; high-quality experiences both in and out of lessons are carefully designed to develop the knowledge and characteristics needed to be able to access, succeed and thrive at the highest levels.

Bespoke to our students, building on their starting point and the expertise of our staff, both intent and implementation drive excellence as standard; not a moment wasted.

See below for a breakdown of the research underpinning the Heathfield approaches

⁵ <https://www.myhealthmyschoolsurvey.org.uk/> and <https://2u6szgq3e9x2hmfuy16guf8q-wpengine.netdna-ssl.com/wp-content/uploads/2021/01/2020-v2-Make-Your-Mark-Results-with-Infographics.pdf>

Concept	Research	Heathfield Application
<p>The need to develop academic knowledge in subject areas and contextualise that knowledge for students</p>	<ul style="list-style-type: none"> ● England’s National Curriculum is divided up into distinct subjects. Young and Lambert (2014)⁶ suggest that this way of approaching education has developed for a good reason, that it is within these subject communities that new knowledge is created and contested and so by studying within these communities we best understand this knowledge. ● Coe et al (2014)⁷ review of the research on what makes great teaching find that “The most effective teachers have deep knowledge of the subjects they teach, and when teachers’ knowledge falls below a certain level it is a significant impediment to students’ learning” (p. 2) ● Baumert et al (2010)⁸ found that teachers with greater content knowledge have higher levels of pedagogical content knowledge, which itself leads to greater attention to cognitive activation (developing pupils’ conceptual knowledge through, for example, summarising and questioning strategies) in teaching. ● Subject content knowledge is important, so is a knowledge of the way this subject is best recontextualized for young people as the school subject is not identical to the academic discipline (Firth, 2018) 	<ul style="list-style-type: none"> ● Teachers teach in chosen subject discipline with expertise for the level of delivery in all subjects (annually reviewed). ● The National Curriculum is delivered in full content and in spirit throughout KS3. Assessment and intervention ensure impact for all groups is maintained prior to transition to the next stage. ● All departments are funded to join subject associations, giving access to latest thinking from within subject communities and ideas on recontextualizing in school settings. Including HE expertise. ● Dept CPL plots aspects of the specifications of required knowledge that may need development and ensures this is addressed for all staff across the course of a year developing subject knowledge. ● Dept time planned to ensure subject knowledge between staff is shared and secure including the pedagogies for maximum delivery ● Dept 2 meeting time is consciously allocated to ensure all teachers are able to understand knowledge and apply with confidence. ● SoL contextualise how knowledge should be delivered in classrooms ● Support is given to Subject Hub meetings locally and regionally to access new knowledge and discuss. ● CPL in bespoke CPL weeks is designed to deliver knowledge and concepts which are then given time to be developed in departments. ● Accessibility for all is maximised through use of student profiles (Closing the Gap). Misconceptions are discussed and planned for. ● Wider Curriculum activities link to the “Big Idea” of curriculums and allow students to develop knowledge/understanding in different contexts: Collapsed Curriculum Days, Super Curriculum, Enrichment.

⁶ Young, M. & Lambert, D. (2014) Knowledge and the Future School: Curriculum and Social Justice (London: Bloomsbury).

⁷ Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014). What makes great teaching? Review of the underpinning research. Durham University: UK. Accessible from: <http://bit.ly/2OvmvKO>.

⁸ Baumert, J., Kunter, M., Blum, W., Brunner, M., Voss, T., Jordan, A., ... & Tsai, Y. M. (2010). Teachers’ mathematical knowledge, cognitive activation in the classroom, and student progress. *American educational research journal*, 47(1), 133-180.

Concept	Research	Heathfield Application
<p>A curriculum that supports Social Mobility and equity of experience</p>	<ul style="list-style-type: none"> ● Sutton Trust (Allen & Thompson 2016)⁹: Suggests that pupils from disadvantaged backgrounds may be discouraged from taking academic subjects, PP students less likely to take EBacc subjects compared to non-PP with similar attainment. ● Berliner (2011)¹⁰ and UK EPI Report (2017): Suggest that test pressure in the US is leading to diminishing study of the Arts. 	<ul style="list-style-type: none"> ● Curriculum model to ensure breadth of choice for all students so that PP students are not disadvantaged. Without the 4th choice staggered, research tells us that many students would not choose to complete full EBacc entitlement with full access to KS5 transition. ● Ebacc entry: 2017-21 4-year average 62% ● Disadvantaged Ebacc entry: 2017-19 36% vs National 26% ● Disadvantaged access to clubs and Wider Curriculum to 2019 was equivalent to 60% engagement matching the non-PP student levels. ● 80-85% of students opt for an Arts based subject at GCSE, the Heathfield model is designed to ensure students continue with breadth enabling practical subjects which require time outside the taught curriculum to be followed alongside a full EBacc complement.
<p>A curriculum that supports students with special educational needs</p>	<ul style="list-style-type: none"> ● Deunk et al suggest adapting teaching in a responsive way, for example by providing focused support to pupils who are not making progress, is likely to improve outcomes - more than differentiation.¹¹ ● Repeated DfE papers stress the importance of a student-centred approach involving CYP and families¹² ● Studies into schools strong on providing personalised learning found that they were characterised by learners as “co-investors” and by high level of pupil engagement¹³ ● Ofsted SUPPORTING SEND¹⁴ review found: <ul style="list-style-type: none"> ○ Staff knowledge of pupil needed to prioritise needs ○ Gaps in starting points led to negative experiences ○ SEND students spending time out of classroom (with TAs) creating overreliance or missed learning and reduced ambition for their achievement ○ Curriculum content did not take account of missed learning - strong subject knowledge needed 	<ul style="list-style-type: none"> ● Heathfield pillars and associated CPL ensures approaches scaffold learning for all, prioritising starting points, key misconceptions and ambition for all. Use of assessment to identify missing core knowledge and concepts needed. ● Closing the Gap Strategy provides accurate identification of those in a disadvantaged group: identified Special Educational Need or Disabilities (SEND), Pupil Premium (PP), Children in Care or Children Looked After (CLA), those with English as an Additional Language (EAL) and identified Travellers. Early identification at primary phase. ● Student profiles are completed with parents and primary colleagues. Meetings underpin relationships which co-construct the strategy, including the student. ● Closing the Gap register and profiles provide details of students with personalised learning strategies. ● Time for staff with TAs and close liaison with Learning Support ensures staff know students well. Quality assured throughout year. ● Intervention takes place in lesson via wave 1 and 2, withdrawal is not common as an intervention.

⁹ Allen, R., & Thompson, D. (2016). Research Brief: Edition 13, July 2016: Changing the subject: How are the EBacc and Attainment 8 reforms changing results?.

¹⁰ Berliner, D. (2011). Rational responses to high stakes testing: The case of curriculum narrowing and the harm that follows. *Cambridge journal of education*, 41(3),.

¹¹ M I Deunk, A E Smale-Jacobse, H de Boer, S Doolaard and R J Bosker, 'Effective differentiation practices: a systematic review and meta-analysis of studies on the cognitive effects of differentiation practices in primary education', in 'Educational Research Review', Volume 24, Issue 1, 2018, pages 31–

¹² DCSF 2007: 6; DfES 2006: 6

¹³ Sebba et al: An Investigation of Personalised Learning Approaches Used By Schools (2007)

¹⁴ <https://www.gov.uk/government/publications/supporting-send/supporting-send>

(cont.)	<ul style="list-style-type: none"> ○ Strong relationships needed with families and clear communication routes ○ SENDCos not given time to develop role/relationships ○ Social and emotional adjustments were important 	<ul style="list-style-type: none"> ● Teachers plan with TAs to build core knowledge sequentially ● SENDCO and Lead Teacher both non-teaching to enable strong relationships, staff support and development. Leading whole staff CPL in SEND issues to ensure consistent and adequate understanding. ● Training and student profiling ensure social and emotional support is strong. LS provides safe space for students who need it socially.
Wider application and generic skills linked to subject knowledge	<ul style="list-style-type: none"> ● Bailin et al (1999)¹⁵ argue critical thinking cannot simply be developed by practicing how to think critically. To think critically about something, we need to know about that thing. Without all this existing domain knowledge they will struggle to think critically about this complex issue and will be left making superficial points. ● Stigler and Hiebert¹⁶ find common weaknesses across countries in their analyses of the 'Trends in international mathematics and science' (TIMSS) video studies, include lack of a shared language to discuss curriculum and poor implementation of school policies in classroom practice. ● Evidence on digital fluency - Christensen et al. (2008)¹⁷ argue for education to change and move away from a standardised approach of delivery in order to improve educational outcomes and opportunities in life. ● Meyer (2011)¹⁸ however, reminds us that Christensen et al. (2011) argue that online learning itself, is not the disruptor but the fact that it encourages people to challenge their previously held assumptions ● DFE digital skills framework¹⁹ provides a list of digital skills that all adults need for life and work, noting that 1.3 million adults lack the basic digital skills needed. 	<ul style="list-style-type: none"> ● Employability/careers skills (critical thinking, teamwork, problem solving) are linked directly to subject context/expertise to ensure students identify and articulate skills in subject distinct genres. ● Oracy/Reading is viewed as the responsibility of all teachers (underpinned in English) delivered in subject contexts. ● Intervention for lower attaining students to "catch up" allows progression alongside peers. Reading fluency is developed consciously through vocabulary development, tracking reading habits, ages and engagement. Both overt and subtle intervention (<i>Lexia, Reading Projects, Heathfield Reads, Bedrock and Words of the Term</i>) ● Vocabulary promoted by a proactive and engaged library. ● Numeracy skills developed across subjects for consistency of delivery, and use of language across Maths, Science technology and Geography. ● Digital fluency: Twice appointed Apple Designated School. The iPad is a tool to develop learning experiences. However, without quality first teaching technology will not enhance learning by itself. ● Strong pedagogical focus, technology as support to learning of students and teachers. Research-informed practice builds teacher expertise through collaborative alignment including: Modelling, Improving Explanations, Assessment, Feedback and Pupil Practice ● Measuring impact uses outcomes and a holistic view of the impact technology has on student learning²⁰: Results analysis, Department conversations, Digital Health Checks, Surveys, Learning walks, Lesson observations, Quality Assurance, Local/Regional Research Projects

¹⁵ Bailin, S., Case, R., Coombs, J. R., & Daniels, L. B. (1999). Common misconceptions of critical thinking. *Journal of Curriculum Studies*, 31(3), 269-283. 34

¹⁶ Stigler, J. W., & Hiebert, J. (2004). Improving mathematics teaching. *Educational leadership*, 61(5), 12-17.

¹⁷ Christensen, C.M., Horn, M.B. and Johnson, C.W., (2008). How 'disruptive innovation' will change the way we learn. *Education Week*, 27(39), pp.25-36.

¹⁸ Meyer, K.A., (2011). Is online learning a disruptive innovation? *Planning for Higher Education*, 39(4), p.44.

¹⁹ <https://www.gov.uk/government/publications/essential-digital-skills-framework/essential-digital-skills-framework>

²⁰ https://www.heathfieldcc.co.uk/?page_id=2275362

Concept	Research	Heathfield Application
Motivation and Attention- linked to resilience	<ul style="list-style-type: none"> ● Pupil motivation is tied to expectations of success (Barron and Hulleman, 2014)²¹ ● Liu & Wang (2008)²² showed teacher expectations have been found to be related to pupils' characteristics. ● In a high-expectancy culture, school leaders emphasise that all pupils can learn and communicate that belief to pupils and staff (Harris & Muji, 2004)²³ ● Martin & Marsh (2011) , Pinxten et al (2013) Muijs (1997) quote self-belief as significantly related to attainment. Including the strong claim that the effect and impact of achievement on belief is key to positive self-belief. ● Tough (2012) suggests resilience (academic resilience) along with optimism and self-control can help explain why some pupils from disadvantaged backgrounds do better in terms of educational outcomes and life outcomes than others from the same backgrounds. ● Hill et al (2007) seem to show that ensuring pupils achieve academically, or in areas such as arts and sport make a difference in developing resilience. ● Muijs (1997) Marsh et al (2011) academic achievement can lead to positive socio-emotional outcomes for pupils such as enhanced self-concept and attitudes to learning. 	<ul style="list-style-type: none"> ● Praise is built into every lesson to ensure success is overt, feedback confirms the aspects of knowledge and skill that has been shown overtly. High expectations demonstrated for all regardless of background or prior ability (pupil voice, quality assurance). CPL and research led approaches supported by external expert speakers. ● Data led analysis of praise and consequence highlights any interventions needed for unconscious bias or early intervention to ensure attention and focus is supported. ● Planning and scaffolding ensures students feel confident with the task before attempting independently. ● Clear assessment weeks for Year 7+ with overt explanation of revision techniques (The Heathfield Revision Clock is referenced in all KS3 revision materials), experience builds success and understanding of self-management towards academic achievement. ● GCSE entry in Year 10 builds experiences of success with clear impact in Year 10 & 11 on motivation, resilience and academic self-esteem. ● CLT has been a focus of CPL as a result of the College Improvement Plan for 2-3 years and as one of the results clear consistent guidance on classroom presentation and layout has enhanced the environment for attention (as observed by Dr M Hobbis) as well as guidance on the presentation of resources to reduce unnecessary distraction.
Curriculum implementation	<ul style="list-style-type: none"> ● Sweller et al (1998)²⁴ suggests whilst working memory is limited, it can be supported by calling on the knowledge we hold in our long-term memory. It is important prior knowledge is accurate and can be recalled. ● Rosenshine's Principles (2012)²⁵ suggest it is important to 	<ul style="list-style-type: none"> ● At Heathfield Community College time is given for department meetings before each unit is taught and discussion of useful questions and likely misconceptions to be aware of. We know this is especially important for those with less experience in the classroom as they may not have encountered these misconceptions before and so may not

²¹ Barron, K & Hulleman, C (2014) Expectancy-Value-Cost Model of Motivation, in International Encyclopedia of Social & Behavioral Sciences (Ed. Wright, J.D.) (pp.pp. 503-509 (Vol. 8)), Edition: 2nd, Oxford

²² Liu, W. C., & Wang, C. K. J. (2008). Home environment and classroom climate: An investigation of their relation to students' academic self-concept in a streamed setting. *Current Psychology*, 27(4), 242.

²³ Harris, A., & Muijs, D. (2004). Improving schools through teacher leadership.

²⁴ Sweller, J., van Merriënboer, J. J. G., & Paas, F. G. W. C. (1998). Cognitive Architecture and Instructional Design. *Educational Psychology Review*, 10(3), 251–296. <https://doi.org/10.1023/A:1022193728205>.

²⁵ Rosenshine, B. (2012). Principles of Instruction: Research-based strategies that all teachers should know. *American Educator*, 12–20.

<https://www.aft.org/sites/default/files/periodicals/Rosenshine.pdf>.

<p>(cont.)</p>	<p>achieve a high teaching success rate before moving on to independent practice, to identify deeper questions and potential misconceptions by working with colleagues.</p> <ul style="list-style-type: none"> ● Coe et al (2014)²⁶ highlight the role modelling can play in the implementation of the curriculum. Teachers, as experts in their subject and/or phase, have a well-developed schema and, as a result, it is relatively easy for them to solve problems relating to that subject. ● When the modelling is live it allows teacher to not only show how the problem should be solved but also how they, as expert, arrive at the solution (Gallagher, 2011)²⁷ ● Deans for Impact (2014)²⁸ suggest feedback needs to be timely, so mistakes are not carried forward through the curriculum, and focus on the work not simply a student (i.e. focused on what is wrong with the answer>effort). ● Rich et al (2017)²⁹ show feedback on misconceptions is most effective when combined with an explanation of why it is wrong and something else is right, rather than just the fact or whether it is wrong or right. ● Rosenshine (2012) also suggests that weekly and monthly reviews of work can be important so pupils see the big picture of learning and appreciate links between lessons. 	<p>realise the need to draw them out/correct through questioning.</p> <ul style="list-style-type: none"> ● Time and CPL is provided to leaders for consideration of sequencing of the curriculum. Leaders have a clear understanding of why this is taught and why it is taught at a particular point in time. How will it build on prior knowledge and how will pupils use it again in the future is reviewed every year with the department, line managers and HT. ● The construction of Heathfield Teaching and Learning “Pillars” make specific reference to the “Principles of Instruction”. Subsequent whole college CPL included training on modelling, misconceptions, scaffolding and retrieval practice. ● In addition, Wave 1 intervention “mats” refer to Pillar descriptors/ Rosenshine to inform quality-first teaching and in-class intervention. ● The College provides visualisers and staff iPads for modelling to allow teachers to show thinking and scaffolding of concepts/ideas. ● A Deputy Headteacher and Research Lead have completed Evidence Based Educations’ “Assessment Lead Programme”. Learning was disseminated through the Assessment Working Group (2019-20) and whole-College CPL. It also informed changes to assessment and reporting at KS3, in addition to the design and implementation of diagnostic assessments following the COVID-19 national lockdowns. ● CPL on questioning, feedback, challenging gender stereotypes in answering and depth of answers
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²⁶ Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014). What makes great teaching? Review of the underpinning research. Durham University: UK. Accessible from: <http://bit.ly/2OvmvKO>.

²⁷ Gallagher, K. (2011) *Write Like This: Teaching Real-world Writing Through Modelling and Mentor Tests* (Portland, ME: Stenhouse Publishers).

²⁸ Deans for Impact (2015). The Science of Learning [Online] Accessible from: <https://deansforimpact.org/resources/the-science-oflearning/> [retrieved 10 October 2018].

²⁹ Rich, P. R., Van Loon, M. H., Dunlosky, J., & Zaragoza, M. S. (2017). Belief in corrective feedback for common misconceptions: Implications for knowledge revision. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 43(3), 492-501. <http://dx.doi.org/10.1037/xlm0000322>.