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Introduction

This guide is about the process of curriculum articulation and renewal. It is intended for teachers and administrators to reference during the process of designing and reviewing our plans for teaching in a format that can be shared among all teachers and which provides the basis of the instructional obligation of our teachers to our students. In short, it delineates a common practice for deciding what we teach, how we teach it, and how we know it was learned well.

We are in an era of substantial transformation for schools, as we move from a 20th-century design for schooling that prioritized rote process, factual recall, and systemic compliance to a 21st century model undergoing redesign to prepare students for a world that demands life-long learning, critical thinking, strong collaborative skills, and ongoing reinvention. The cognitive tasks that defined the students of the last century are automated now. We must prepare our students for a world complex in problems and diverse in people, where adaptation is not solely about reconfiguring human relationships and knowledge but integrating technological intelligences as well.

Herein we attempt to reconcile those 20th century structures with 21st century student needs, organizing the work of renewing discipline-specific coursework and instructors and leveraging these toward integrated paths of learning that will result in student application and transfer of knowledge and skills across contexts. We use the term deeper learning as shorthand for the mindsets and pedagogies in support of that goal. These shifts can be characterized by increased student agency in learning processes, the ongoing identification and integration of authentic and current contexts in which students apply learning, the design of assessments for myriad audiences and purposes, and the leveraging of technology to amplify student learning and creative processes. These require instructors to deconstruct the boundaries of their disciplines in the service of engaging and relevant experiences for learners. To this end, the curriculum review processes described here are more deliberate in their demands for integrated learning than have been past practice. In recent decades, curriculum review was largely defined by the organization of content and skills across courses and grades. While that still matters, the shift in curriculum review is characterized by far greater emphasis on the development of broad themes of importance within each course, and the design of assessments that demand the integration of these broad learnings beyond the scope of a single discipline.

While typically understood to refer to the content of the planned courses within the k-12 sequence, curriculum is in practice a broad term that can be applied to almost everything that happens in schools: the subjects and units of instruction from kindergarten through high school, the philosophies and practices that determine the manner in which content is delivered to students, the techniques by which we measure student learning and the opportunities we provide them to demonstrate it, and the manner in which our community values are echoed by what we teach and how we teach it. The student sits at the center of the interactions of these
forces, and so curriculum can be thought of as the sum of the school experiences that shape our students.

The Office of Curriculum and Instruction has multiple goals that guide our work (see Appendix A). These are driven by an overarching philosophy which includes these beliefs:

- Our curriculum should be world class, in that we can provide the students of the community of Hatboro-Horsham with an educational experience that is second to none and which will result in student preparedness for a range of post-secondary and career opportunities;
- Our curriculum is viable, in that it considers the essential content and skills mandated by Pennsylvania state standards and leading educational organizations and is systemically planned to ensure that students can learn these skills and content;
- Our curriculum is visible, and that all professionals in our organization can access instructional content and assessment information for all of our programs and all members of our community can easily access instructional content and learning outcomes for those programs;
- Our curriculum should be guaranteed to the extent that we will take steps to ensure that our intended curriculum aligns with our implemented curriculum, assess the learning of students to ensure that their attainment matches the intention of our curriculum, and take steps to ensure that all students have the equity of opportunity to learn aligned with their individual learning needs.

The purpose of a written curriculum is to provide all of the members of a school community with an overview of the learning specific to courses of instruction. It enables professional dialogue and consideration of student learning across grade levels by all of the professionals charged with the delivery of instruction. While it represents to the students and the community a sense of what learning can be expected during the scope of a planned course, it creates a special obligation for teachers and school administrators in that it shapes classroom instruction to a considerable degree. While the documents that represent our written curriculum do not stifle the autonomy of the classroom teacher to exercise creativity and vision in the design, delivery, assessment, and supplementation of student learning, they do establish static baselines for the consideration of course content, student competencies, and the ways in which students demonstrate mastery of their learning. In a very real sense, these documents represent a sort of learning contract between our teachers and the students they serve. We are bound to the delivery of the courses as they are described by our written curriculum documents. We are obligated to periodically review and update these practices to ensure our students experience designs for learning informed by current thinking.

Leading education researcher Robert Marzano identifies a “guaranteed and viable” curriculum as the single most important school-level factor contributing to student achievement. This guide is about how we can achieve those things: create a professional guarantee that curriculum will be delivered to all students and make it visible so that any
An educator can access any of our educational programs to see what is taught. These things create a transparency for the school community and build a collective confidence in the blueprint to accomplish our educational mission.

The design of these documents is envisioned as a collaborative practice. An ideal curriculum represents a collaborative product with those involved in the process of learning, but teachers and administrators have special obligations to that process and will serve as the primary crafters of curriculum. Periodically, all curricula are reviewed and updated according to the curriculum review cycle (Appendix B).

**Purpose**

The purpose of this manual is to guide district educators during the process of review and renewal of planned courses and assessments. It lays out the processes and timeline for the review process. Expectations for the products of these review include an accessible template that describes the learning in each course as well as specific reporting requirements during the review process.

**Chapter 4 Requirements**

Chapter 4 of Title 22 of the Pennsylvania State Code outlines the requirements for curriculum in Pennsylvania public schools. Generally, this instruction includes:

1. English language arts.
5. Social studies (civics and government, geography, economics and history).
6. Arts and humanities.
7. Career education and work.
8. Health, safety and physical education.
9. Family and consumer science. (§ 4.11. Purpose of public education)

Additionally, state code provides a rough framework of what types of documentation constitute planned curriculum for a Pennsylvania school district:

1. Objectives of a planned course, instructional unit or interdisciplinary studies to be achieved by all students.
2. Content, including materials and activities, and estimated instructional time to be devoted to achieving the academic standards. Courses, instructional units or interdisciplinary studies of varying lengths of time may be taught.
3. The relationship between the objectives of a planned course, instructional unit or interdisciplinary studies and academic standards specified under § 4.12 and any additional academic standards as determined by the school entity.
4. Procedures for measurement of the objectives of a planned course, instructional unit or interdisciplinary studies. (§ 4.11. Purpose of public education).
Pennsylvania describes the scope of what must be taught in each of these academic areas through a framework of standards. These are described in § 4.12 and will be discussed later in this document. As the content for courses is determined during the process of curriculum writing and review, it is important to keep in mind that the curricular requirements under state code are not intended to preclude local school district communities from determining additional content for planned courses, nor preclude the inclusion of other lawful standards and competencies in curriculum that are determined essential by the local school community.

Board Policy

Several Hatboro-Horsham School Board policies are relevant to the work outlined in this manual. For anyone leading curriculum work, it is recommended that you take a few minutes to review the following policies:

1) 102: Academic Standards
2) 105: Curriculum Development
3) 106: Guides for Planned Instruction
4) 107: Adoption of Planned Instruction
5) 108: Adoption of Textbooks/Core Resources
6) 109: Resource Materials
7) 119: Current Events
8) 127: Assessments

Board policies can be found and reviewed through Board Docs.

The School Board Curriculum Committee

The school board curriculum committee meets monthly to address issues of educational relevance. These meetings are public and advertised on the district website. It is made up of at least two school board directors, the assistant superintendent, and several administrators including the curriculum directors and at least one building principal representative from the elementary, middle, and high schools.

Among the recurring tasks of this committee related to this manual is the receipt and evaluation of reports related to curriculum review, review of student assessment scores, review of textbooks and core resources for recommendation for adoption to the full school board, approval of new planned courses, report and accounting of professional development activities related to curriculum and strategic plans, and receipt of updates pertaining to major district educational initiatives including those described by the comprehensive plan.

Reporting processes and resource requests related to work guided by this manual will usually work through the school board curriculum committee.

School District Mission and Vision

District Mission
The School District of Hatboro-Horsham will prepare and challenge all students to excel academically and to develop social skills and creativity by providing exemplary and innovative educational programs through a supportive collaboration of educators, students, parents, and community.

**Vision**

Hatboro-Horsham School District is comprised of a cohesive, supportive group of dedicated staff, students, parents, and community members united in our commitment to pursue excellence in education. We intend to realize our highest potential as an educational community by setting clear, measurable goals, employing best practices, engaging in effective communication, and utilizing resources wisely. We will use our successes as a catalyst for future growth, change, and improvement.
Philosophy of Curriculum

What is Deeper Learning?

Beginning in 2015-16, Hatboro-Horsham school district teachers were asked to engage in transforming their teaching practices to align with deeper learning. This shift was initiated partially in response to mounting public discourse asking schools to reconsider how students are prepared for citizenship and the workplace, and partially in preparation for a multi-year technology initiative that provided students with a personal computer for learning. With the planned introduction of student technology, we sought to define a pedagogical course compelling enough to transform learning while keeping technology in the service, and not at the center, of that transformation. “Deeper learning” is the shorthand we use to describe that pedagogy.

Deeper learning is “the mastery of core academic content, including foundational domain knowledge, concepts, and modes of inquiry in the humanities, mathematics, sciences, and arts that form the building blocks for further study and skill specialization. [It is]The academic ability and predilection to continue to learn and to apply and transfer knowledge effectively through higher-order skills, such as critical thinking, problem solving, communication, collaboration, and self-directed learning.[1]” It is the prioritization of the development of these latter higher-order skills, students’ ability to transfer knowledge, and the predilection for continuous learning that marks the key shift between traditional models of schooling and deeper learning.

Much of the literature on deeper learning discusses “the 4 Cs” of communication, collaboration, critical thinking, and creativity. Some sources identify additional “Cs” of citizenship, character, and content mastery. Common to all is the development of student capacity to plan and engage in learning independently, having agency in determining how learning will occur and be demonstrated. This sets the table for a future where the ongoing acquisition of new knowledge and skills will define long-term success in any work or career.

The literature also stresses student engagement in identifying and solving authentic “real world” problems, that is, problems grounded in the community, novel problems, or other work that requires consideration of characteristics common to actual workplace settings. Solving such problems requires students to engage with wider audiences than within the school, reaching out to experts and others with knowledge or a stake in problem outcomes as well as preparing to present their learning to others beyond teachers and fellow students and in spaces beyond the classroom. Finally, several sources position technology resources as necessary for students to acquire real world-skills and fully engage in both collaboration and self-directed learning. For some noteworthy definitions from noted deeper learning proponents, see Appendix G.

Instructional Implications of Deeper Learning

During 2016-17, teachers were introduced to a framework for instructional design known as Trudacot: Technology Rich Unit Design and Classroom Observation Template, and in 2017-18, HHSD administrators began using this template to provide walkthrough feedback to
teachers. The authors of the framework, Scott McLeod and Julie Graber, recently renamed the framework the “4 Shifts” framework, reorganizing the areas for feedback around four shifts that define school transformation and deeper learning. The most current version of the framework can be found in appendix H.

The four shifts are described as:

1. Higher-level thinking
2. Authentic work
3. Student agency
4. Technology infusion

Curriculum Review Process Overview

All curriculum review cycles are overseen and completed by a curriculum review committee. This committee is responsible for the writing and delivery of reports throughout the review cycle, and the facilitation of the tasks necessary within the review timelines.

The Curriculum Directors will initiate the review process prior to September of year one by working in consultation with the Director of Elementary and Secondary Education, the Director of Special Education, and the administrative curriculum oversight committee to recommend members of the review committee to the Superintendent. The Superintendent shall approve the make-up of all curriculum review committees.

The curriculum review committee shall consist of:

- One curriculum director, whose role shall be to advise the committee chair, assist with the coordination of the work of the chair and the committee, and guide the review process;
- At least one principal representative from each of the high school, middle school, and elementary levels;
- Relevant department chairs and curriculum coordinators from the high school and middle school levels;
- A representative from the office of Special Education and Pupil Services as assigned by the Director of Special Education and Pupil Services;
- Others with expertise or roles in the curriculum areas, such as classroom teachers, instructional coaches or specialists, district level administrators, or community members with expertise in the area of review. During the formation of new review committees, the administrative curriculum committee will recommend parents and community members with special interest or expertise to the review committee chair. The chair will also solicit such recommendations from the review committee.

The size of the committee should be minimally six participants with larger committees more common. At the beginning of the review cycle, a committee chair should be designated from among the principals, department heads, and curriculum coordinators. In reviews of ELA, math, science, and social studies, the chair must be a building principal. This chair will oversee the work of the committee for the six-year cycle, with the understanding that much of the formal work pertaining to curriculum review happens in the first two years of that cycle. If circumstances dictate, others on the committee could be designated as chair if the group deems it appropriate. In instances where a chair is unable to finish a review cycle, the group shall appoint a new chair by consensus.

Curriculum Review Timeline

Courses are to be reviewed not less than every six years, following the approved curriculum review cycle. Typically, all K-12 curriculum and courses will be reviewed in the same cycle for
the given content area. The 6-year cycle for HHSD beginning in 2018-19 can be found in appendix B. The bulk of the formal work for the review committee occurs during the first two years of the cycle.

Reporting Requirements During the Review Cycle

The Curriculum review process entails multiple informal updates as well as three formal targets for designated reports. The formal reporting timeline is:

1. A formal curriculum report with recommendations to be made to the school board curriculum committee not later than the second Tuesday in June of year 1 of the cycle,
2. If needed, a formal request for approval of core resources by March of year 2 of the cycle,
3. Updates to planned curriculum documents by September of year 3 of the cycle.
4. Formal update to the board curriculum committee providing a review of curriculum changes, outcome measures, and resource implementation at the conclusion of year 4 of the cycle.
5. At the request of the curriculum directors or other administrators, periodic formal or informal reports regarding implementation of curriculum changes and resources during years 3-6 of the curriculum cycle.

Organization and Workflow for Curriculum Review Committees

The recommended tools for organizing the work of the curriculum review committee are the Microsoft Office tools used by the district for organizational management: Outlook and Teams. Outlook is essential for calendar scheduling and basic communication via email. Teams allows for a dedicated virtual workspace for groups with ad hoc memberships that draws aspects of several Microsoft products together, including a Microsoft One Note space for documenting meeting notes and notes by team members relevant to specific tasks (resource review, site visits, literature review, etc.). Additional functionality includes an Outlook-integrated tool for online meeting facilitation in instances where this is feasible. Critically, this tool can be enhanced with the addition of Microsoft Planner for assigning tasks with deadlines to committee members. One of the roles of the curriculum director assigned to the review committee shall be the creation of the virtual team and facilitating its use for members.

Year 1: Big Ideas/Research and Best Practices

The first year of the review cycle can be thought of as having three discrete phases, culminating in a formal report to the board curriculum committee. These phases and associated tasks are described below, and are aligned to the three distinct sections of the curriculum report.

The Curriculum Report

The purpose of the curriculum report is to update district stakeholders about the current status, structure, and practices found in the curriculum domain under review. In addition to current status, the curriculum report uses existing evidence to lay out a direction for
the work necessary to move the district to renewed practices. To this end, after establishing current status, committee members should explore best practices for their subject by examining research, looking to leading organizations in their field for guidance, examining the degree to which the current program aligns with state and national standards, and scouring the education landscape for promising and exemplary practices. Evidence collected is used to conclude the report by making recommendations regarding the direction of the curriculum review process for the next five years. While the report can include recommendations as to the type of resources needed to meet its vision, it is not a request for resources. Rather, its intent is to guide the identification of resources during year two of the review cycle. The curriculum report’s primary purpose is to establish clear philosophical principles for education in the subject area K-12, detail any necessary changes to align our current practices to this vision, and provide evidence and justification for recommendations.

After a title page and an acknowledgements page listing the membership of the review committee, the curriculum report should consist of three sections:

I. Current status of curriculum: detail existing K-12 course structure, current practices, any relevant assessment results,

II. A review of research, recommended best practices, survey of exemplary schools and programs, current standards, and debates in the field regarding instruction

III. Recommendations, including a vision for curriculum, an overview of the steps needed to meet that vision, and a plan in the form of discrete goals with deadlines to achieve any necessary shifts.

Keep in mind that the curriculum review report is a public document that will be shared widely within our system – not just with administrators and teachers, but also school board members, families, and colleagues in other school districts. The report will be posted on the school website for access and review. Be mindful of the extent of the audience and adhere to the highest professional work standards when writing this report.

Current Status

After establishing the committee and determining a chair, the committee begins by engaging in a review of the existing status of the curriculum. This includes a description of the courses associated with the curriculum K-12, including elective offerings and credit requirements at the secondary level. Each course should be briefly described in terms of its major content focus. The current status review should include any assessments that provide information about student performance relative to course outcomes. This could include, but is not limited to, consideration of student performance on associated state and national standardized tests, associated Advanced Placement exam scores, and student performance on any district common assessments or final exams. A thorough accounting of the existing instructional resources should accompany this review as well. This would include board-approved core instructional resources as well as supplemental resources in use. Finally, it should be clear to the committee members the extent of various grouping structures (i.e.,
honors, college prep, academic courses, etc.) in practice K-12 as well as avenues for acceleration in the scope of the K-12 sequence. The primary intention of gathering this information is for the review committee to have all of the information it needs to be objectively critical of existing practices and the extent to which they align philosophically with the goals of the school district and review committee.

Additional considerations for determining the current status of the curriculum involve gathering information from existing stakeholders. Gathering information from stakeholders about the state of the curriculum could include focus groups of teachers, students, or other stakeholders; surveys of stakeholders interacting with the curriculum, or informal interviews conducted by committee members. The extent to which these occur and the depth of the need for them are left to the discretion of the committee.

One way to guide the work of the committee in determining current practices and assisting in gathering recommendations is conducting an external audit of the curriculum. This is a process where a group of outside practitioners (typically from surrounding school districts) is invited to visit, make observations of current practices, and provide feedback and recommendations. These visits typically occur intensively over a few days. Organizations such as intermediate units and other professional organizations can offer assistance with organizing and running these, and it is recommended that any committee considering an external audit begin by contacting the Montgomery County Intermediate Unit to see what services they can offer in this regard before exploring other avenues for an external audit. It is typically an expensive process in terms of money and time to organize, but in instances where there seems to be broad internal disagreement about the direction of the curriculum or the need for change, this can provide a valuable reference point to inform and guide the work of the review committee. The committee should consider this option very early in year one of the review process as it will require months to organize and conduct and it should occur not later than spring of year one of the review cycle.

**Identifying Standards and Exploring Best Practices**

The committee must identify the current state standards associated with the content and instruction of the curriculum area being reviewed. Additionally, the committee should review standards offered by relevant national organizations (for example, while at the time of this writing Pennsylvania has not adopted the Next Generation Science Standards, these national standards are widely considered to be the benchmark for science instruction and would certainly be considered in a science review). These standards will guide the design of curriculum units in year two of the cycle and will be useful in determining the pedagogical philosophy and vision that the committee will craft to guide curriculum design.

There are numerous additional options for exploring best practices and the committee should consider at least a few of these: identifying national experts and reviewing their recommendations, identifying research or literature relevant to the review, visiting conferences for practitioners of this curriculum area to get a sense of best practices and current trends, identifying high-performing school districts and visiting or soliciting information about their
practices, gathering information about other districts’ recent curriculum reviews. The committee may identify additional needs or practices for gathering evidence from the field as is warranted.

**Recommendations: Determining Outcomes and Establishing Instructional Vision**

While the first two sections of the curriculum report (current status and identifying best practices) can occur concurrently, the third phase is for the determination of the committee’s recommendations regarding changes to instructional practices and communication of a clear philosophy of instruction to guide course review K-12. This must be informed by the evidence elicited during the first two phases of the year 1 review.

An important consideration for the committee as the first year winds down is communicating its work and direction to the broader school community beyond the school board curriculum committee. This includes our families and constituents as well as considering how well the committee’s work has been conveyed to district administrators and teachers. The methodology for this could include public forums, posting information for review, including links in newsletters, etc. The committee should determine the best method for this communication, but it should include an avenue for feedback from the community.

In instances where the committee determines that significant shifts need to occur in pedagogy, the consideration of professional development for the following year should be considered. The chair of the committee must coordinate these needs with the chair of the district Professional Development Committee so that these needs can be accounted for in long-term planning for the following school year.
Year One Checklist: Critical Tasks that Inform the Curriculum Report

- Curriculum Directors, in consultation with the Director of Elementary and Secondary Education and the Director of Special Education, recommend to the superintendent members of the review committee (prior to September).

- The committee convenes, elects a chair, and plans for year one of the review, establishing timelines for work and delegating responsibility for these tasks to committee members (by October 1). Subcommittees may be organized to facilitate these tasks. The committee must immediately make decisions around the extent to which the following will be part of the review (starred items are mandatory for all reviews):
  - Overview of existing K-12 courses and electives*
  - Student performance data*
  - Listing of instructional resources*
  - Determine need for/use of focus groups
  - Determine need for/use of electronic surveys
  - Determine need for/use of informal stakeholder interviews
  - Determine need for external curriculum audit
  - Gather relevant state standards*
  - Consider use of other standards, such as national standards from professional organizations*
  - Review research and other literature relevant to the review*
  - Identify national experts who could inform the committee’s work
  - Identify conferences for committee members and others for which attendance would inform the review.
  - Identify high-performing districts for the purposes of visiting or exploring their practices
  - Gathering artifacts from other districts who recently conducted reviews of their curriculum

- Reconvene as needed for updates and to ensure that all aspects of the current status, identification of standards, and exploration of best practices is complete by the end of semester 1 of year 1 (an exception to this would be an external audit, which may run well into the second semester)

- Establish meetings and timelines for the group to identify a philosophy of instruction for the review

- Establish a timeline and delegate responsibility for the crafting of the curriculum report (the report is to be completed by the end of April)

- Forward the curriculum report to the superintendent, assistant superintendent, and administrative Curriculum Oversight Committee for preview (on completion)

- Communicate long-term estimates regarding professional development to achieve the committee’s vision to the district administrators Professional Development Long Term and Short-term Committee (on completion)

- Arrange with the curriculum directors to present the curriculum report at the May or June School Board Curriculum Committee meeting

- Present the report to the School Board Curriculum Committee accompanied by a 15-20-minute presentation summarizing the report

- Develop a formal process for sharing committee work, direction, and anticipated changes with the community. The method of this communication is at the discretion of the review committee but should allow for community feedback

- If needed, discuss summer curriculum writing hours with the curriculum directors to begin year 2 review cycle processes
Year 2: Assessment Design, Mapping, and Resource Identification

While the school year serves as a general timeline for review processes, it’s important to note that this process can commence as soon as the report with recommendations is received and approved by the board curriculum committee at the end of year one. The tasks associated with year two can commence in the summer months prior to year two. In instances where teachers are included in the work associated with year two, summer curriculum writing hours may be available for this work. The designation of these hours should happen in consultation with the curriculum director and their availability is influenced by the needs of other review committees and additional curriculum projects.

There are several critical tasks associated with year two: the determination of student course outcomes and K-12 outcomes, K-12 curriculum mapping, and the identification of any necessary new resources to implement the curriculum vision. These latter two tasks must happen concurrently, and so coordination by the chair between subcommittees doing this work is critical to the success of year 2 processes.

Curriculum Outcomes and Assessment

There are two distinct kinds of assessment that the review committee must formulate: the student outcomes for the K-12 curriculum, and the means by which the review committee will measure the success of the implementation of any changes described in the curriculum report. While this latter assessment will most likely include measurements of student outcomes, a well-designed plan also includes a wider view of measures of instructional quality, stakeholder perceptions, and curricular fidelity.

Student Outcomes

Once a clear vision and philosophy for the curriculum have been established, the committee should establish outcomes for students. Both types should be informed by the state and national standards identified by the committee during year one (see “Alignment of Standards”) and used for the purpose of establishing the curriculum vision. These outcomes should be written in 2 distinct ways:

- **K-12 outcomes** that describe the skills, competencies, and habits of mind that all Hatboro-Horsham students will exhibit and demonstrate upon completion of the arc of all of the learning in the scope of the K-12 curriculum. These tend to be big picture goals, and tied to practice standards for the discipline. In instances where a discipline contains numerous elective course options at the secondary level, it’s important to craft these goals with consideration only to courses that all students must take as part of our standard curriculum. Elective courses can enhance and supplement these goals, but K-12 outcomes cannot be written in a way that depends on students gaining skills or competencies not taught within required K-12 courses. K-12 outcomes are outcomes for ALL students.

- **Course-specific outcomes** describe goals for students at the end of each course. While these are also informed by practice standards, they are typically more
aligned to specific skills and content that students are expected to master within the scope of a single course. Course-specific outcomes are an essential part of the curriculum writing process and these may be completed by a subcommittee of the curriculum review committee. However, it is important that members of the curriculum review committee be aware of specific course outcomes so that they can ensure that these outcomes aligned to the philosophical aims of the curriculum review plan, and also for the coordination of assessment measures.

Curriculum writing should begin during year 2 of the review cycle with the aim of implementing revised curriculum in classrooms at the beginning of year 3. It is strongly encouraged that this process involves teachers at all levels, and that it begins as soon as possible during year 2. A more thorough description of the curriculum writing process is found in the section “Writing Curriculum” on page 26.

Note that curriculum writing is a gradual process and is unlikely to be completed in linear fashion. It is the intent of our review process to fully separate the work of identifying the philosophy, big ideas, and essential skills of curriculum from the process of selecting resources. Resources should be selected that match the committee’s pre-established vision for curriculum and should never be allowed to determine them; in this sense, it is very possible and even desirable to do much of the work of curriculum writing prior to the selection of resources.

**Measuring Successful Implementation of the Curriculum**

The measurement of the committee’s intentions is an important aspect of the curriculum review process. These measurements will be described during the update required in year 4 of the review cycle. These updates should certainly align to student outcomes, and in this sense will almost certainly include some collection of student data from common assessments. The committee should determine ahead of time which of these will be used, even in instances where these assessments have yet to be written as part of the curriculum writing process.

There are a number of other ways that the success of curriculum revisions can and should be measured. These include teacher-focused aspects of curriculum implementation. In instances where the curriculum review committee has determined that professional development was needed to produce alignment to the vision established during year one, the outcomes of this development should be measured. This can include feedback from the teachers, as well as classroom-level indicators of implementation. Walk-throughs by the curriculum review team in tandem with other administrative staff provide useful information about the degree to which desired changes are taking hold. Other measures of fidelity to be considered can include observations of the use of any new resources, student interviews, surveys, and other measures as determined by the review committee.

**Mapping**

Once student outcomes have been established, the process of working backward from grade 12 to kindergarten should be undertaken by a subcommittee of the review committee.
Depending on the makeup of the review committee, additional teachers may need to be recruited for this process. It is important for this work to be advised and vetted by teachers at the elementary, middle and high school levels. This process will involve use of the selected national and state standards. For additional information about the mapping process please refer to the section in this guide called Curriculum Mapping - Scope and Sequence, page 33.

**Resource Adoption Procedures**

Any request for resource adoptions must be made consistent with district policy. Requests for core resources (any resource which will be the primary instructional resource for a given course) must be approved by vote of the full school board. Curriculum review committee members seeking such approvals should coordinate this work with the curriculum directors. Resource adoption requests must be made in writing via the New Textbook/Resource/Software Request form. This form can be reviewed in appendix C and is available electronically on request from the curriculum directors. This form should be accompanied by quotes from vendors to support the estimates for the cost of any new resources.

All resources designated as “core instructional resources” for any course must be approved by the board of school directors (see board policy 108). In years 1-2 of the review cycle, it is appropriate for review committees to solicit and seek out resource samples that fit the vision for instruction determined during year one of the review cycle.

Because the acquisition of resources on a large scale is closely tied to annual budgets, requests for resources are typically made during year two of the review cycle for purchase and implementation by the beginning of year 3. While the school board can review requests at any time during the calendar year, it is important that requests for new resources identified during years 1-2 of the review cycle be made not later than March 1 during year 2 of the review cycle.

While it is normal to need to replace some resources given that review cycles happen over 6 years, it should be noted that it is not necessary to replace all curriculum resources. Existing resources should be evaluated by the resource review subcommittee to determine their alignment and fit with the curriculum vision. In instances where a good fit exists, it may be possible to simply keep existing resources in place, or replenish them in instances where they are not serviceable or may not last the duration of another review cycle.

New resources are vetted at a number of levels and require significant input prior to board approval:

1. New resources are identified by the review committee and described on the New Textbook/Software/Resource Request form (appendix c).
2. In instances where the resources are to be used in only one building, a review of the request form and signature of the building principal is required.
3. The completed form should be submitted to the curriculum directors by March 1 along with relevant vendor quotes and samples of the requested resource for review.
4. The recommended resources will be reviewed by the curriculum directors, and they will present suitable resources for review to the board curriculum committee. The curriculum review chair or other pertinent members of the review committee submitting the request may be asked to attend this meeting to speak to the selection process and answer questions about the resources.

5. On approval by the board curriculum committee, the board curriculum committee chair or their designee will present the resource to the full board at a public board meeting.

6. After a period of not less than 14 days for review of the materials by board members or the public, the resources will be added to a school board action agenda for approval by the vote of the school board. During the review period, samples of the materials will be kept in the curriculum office at the administration building to be available for review onsite by any member of the public.

7. Only after approval by the full school board can new resources be purchased or utilized, the lone exception being the scope of a small pilot for the purposes of review.

Because the leaders of review processes may often find themselves in a position of needing to push back against perceptions that the primary function of curriculum review is the selection of new resources, committee members should be guarded against the sense that the recommendation and approval of new resources represents a culmination of the review. It does not. Only when all of the curriculum writing processes are complete, distributed and reviewed with all of the teachers that will implement new curriculum and resources should the processes associated with year 2 be considered complete. This includes any initial aspects of professional development needed for teachers to be prepared to implement changes and new resources.
Year Two Checklist: Critical Tasks that Inform the Establishment of Outcomes, Writing of Curriculum, and Selection and Recommendation of Resources

☐ Committee meets after board curriculum committee approves curriculum report to draft K-12 student outcomes, and
☐ Committee establishes subcommittee for curriculum writing, and
☐ Committee establishes subcommittee for resource review and selection.
☐ Committee establishes timelines for subcommittees and establishes regular processes by which these committees will report progress to committee chair for the purpose of coordinating work

Concurrent Processes

☐ Curriculum writing subcommittee begins by mapping curriculum K-12
☐ Review critical aspects of documentation with curriculum writing committee members; ensure appropriate templates are used and Canvas blueprint access is given as needed
☐ Review relevant aspects of curriculum report and vision with curriculum writers
☐ Determine the extent to which performance tasks and academic prompts will be developed or revised by curriculum writers
☐ Designate appropriate state and national standards for curriculum writers

☐ Review aspects of curriculum philosophy and vision with resource review subcommittee
☐ Resource review subcommittee solicits samples for review from vendors whose products they believe would be a good fit
☐ Resource review subcommittee coordinates piloting of potential new resources as appropriate
☐ Resource review subcommittee recommends resources for adoption to curriculum review committee
☐ On approval by the full curriculum review committee, resource review subcommittee initiates the new resource approval sequence.

☐ Coordinate specifics of professional development needs as they coalesce with the district administrators Professional Development Long Term and Short Term Committee
☐ Pending approval by the full school board, ensure the ordering and distribution of any new resources occurs in timely fashion.
☐ Consider communications to families and community stakeholders as warranted to describe curriculum and resource updates.
☐ Complete aspects of curriculum writing and coordinate communication to teachers aligned to professional development not later than August 1 (prior to year 3).
☐ Determine the measurements that will be used to evaluate the success of any curriculum changes. Delegate responsibility and timelines for creating and implementing these various measures to committee members. These tasks will be critical to your four processes and depending on the measures, may require some actions during year three of the review cycle (by start of year 3).
Year 3: Implement and Monitor

With the beginning of the 3rd year of the review cycle, most of the formal processes associated with curriculum review are complete. Year 3 represents the beginning of the implementation of any changes determined by the review committee during years one and two. This is the point at which the larger school community will begin to see any impacts of the work of the curriculum review committee on a large scale. Teachers and students will engage in any revised curriculum, assessments, and new resources. A consideration for curriculum review committees is the extent to which these changes should be communicated or updated to the public. The precise need and methods for this would be informed by the extent to which the committee has included for made updates to community stakeholders during the 1st 2 years of the process.

Tasks critical to a successful implementation include the timely delivery and distribution of new curriculum documents, opportunities for teachers to review and lesson plan with these documents, the timely distribution of new resources, and professional development to acclimate teachers to curriculum and instructional changes. Another key consideration is the communication of goals to the administrators responsible in every building for the monitoring of curriculum implementation. Most of the tasks of the curriculum review committee during year 3 of the cycle are frontloaded. It may not be necessary to convene regular meetings of the full review committee during this year. A meeting just prior to or soon after the start of year 3 may be needed to coordinate the communication of the plan to all stakeholders. Whether that meeting is needed for can be achieved by the committee chair and designees is left to the discretion of the committee chair.

Delivery and Distribution of New Resources

Ordering new resources should be coordinated with the curriculum office, and depending on the size of the order, the business office may be involved in coordination as well. Check with the curriculum directors about when orders can be made, but even in instances where monies are not available until the following fiscal year, purchase orders can usually be released in May or June of year 2 of the cycle. It is critical that a designee from the curriculum review committee coordinate with the curriculum office and any vendors to ensure the correct number and type of resources are ordered.

Large scale resource purchases of new resources are typically made at the district budget level and not by individual buildings. However, because Hatboro—Horsham does not have a designated warehouse for the delivery and distribution of new resources, review committee members and the curriculum office will need to make a determination about the delivery points for resources. It may be feasible to do deliveries to multiple buildings, or a single point of delivery might make sense. As of this writing, there is no consistent district system for inventory and asset management of curriculum materials (the exception being technology with cost in excess of $400), and so the documentation of the distribution of all resources at the building and teacher level is important to ensuring the delivery of all resources to the end-users as well as serving as a method of accountability for maintaining resources in
classrooms. The curriculum review committee should designate a member to coordinate this work with the curriculum office. It is often necessary at the building level to check teacher by teacher to ensure that all resources that were delivered to a building have in fact made their way to the classrooms. This work can be coordinated with building principals.

Coordinating Curriculum Changes with the Administrative Team

In most instances, building principals are ultimately responsible for ensuring that the teachers they supervise are properly implementing curriculum. This makes it vital for the curriculum review committee to ensure that all education administrators who were not part of the curriculum review committee are apprised of the goals for curriculum changes and the instructional look-fors that can inform their building walk-throughs. Building principals are in the best position to drive the necessary changes needed to achieve the outcomes determined by the curriculum review committee. Often, the measurements needed to gauge the success of the curriculum review are gathered at the building level. In this sense, the review committee must fully partner with education administrators to ensure that common language, messages, and a full understanding of the indicators and goals of a successful curriculum review are understood by all. The methods of this communication are left to the curriculum review committee, but should involve sharing the curriculum vision, and overview of any professional development, and day-to-day classroom look-fors that can indicate success.

Year 3 Checklist: Implementation Tasks

☐ Coordinate ordering of any approved new resources with the Curriculum Office.
☐ Develop a system to track the delivery and classroom distribution of any new resources by building and teacher.
☐ Coordinate with building principals or department heads the delivery of all new resources to the teachers and classrooms that should have received them. Look specifically to see if any classrooms that have been added since the order was placed.
☐ Determine the need for and extent of public communication about curriculum and resource changes to stakeholders such as families and other community members.
☐ Ensure completion of all written curriculum documents by August 1, and communicate them to all teachers and other stakeholders (this step should align with professional development and may need to occur well prior to this point).
☐ Communicate all necessary information for the proper monitoring of curriculum implementation to all education administrators.
☐ Review the measures that the curriculum committee will use to assess the success of the curriculum review, and ensure that any necessary processes for the collection of data for those measurements can occur at the optimal moments.

Year 4: Formal Review and Redesign

During year four, the curriculum review committee makes a formal update to the board curriculum committee about the progress of the curriculum review. The structure of this report is determined by the review assessment measures that the committee agreed upon during year 2. The only tasks associated with this update are ensuring that all of the measures are collected, a short report is drafted and accompanied by a 15-minute update to the board curriculum.
committee, and planning for any adjustments or implementation changes dictated by the committee’s assessment of progress.

Early in the year, the committee chair should check to make sure that any actions needed for the collection of data aligned to the review committee’s implementation assessment measures are in progress, including checking with any individuals designated to engage in those tasks about their timeline for data collection. Collection of data should be made by the end of the 1st semester in year 4. The curriculum review committee should convene early during the 2nd semester to review this data and interpret the results. Should this review uncover evidence that the goals of the curriculum review are not on track or implementation has faltered, the committee should determine the steps needed for course correction, or redesign.

A designee or subcommittee should be identified to draft a short report (2-3 pages) and update for the school board curriculum committee that reviews the assessment measures and provides data about them. The committee’s interpretation of this data should be a feature of the report. If needed, the report should also include any recommendations for revisions to curriculum, student assessments, resource implementation, or additional professional development. This report will be reviewed as an update at a school board curriculum committee meeting between February and June. Once timelines for the completion of this report are in place, please coordinate a date for this update with the curriculum directors.

Year Four Checklist: Formal Review, Redesign and Associated Tasks
- Committee chair communicates to committee responsibilities for data collection aligned to the assessment of the review (meeting convened if necessary)
- Designees complete data collection tasks by the end of semester 1
- The committee convenes early in semester two to review data, interpret results, determine recommendations for changes if needed
- Designate committee members to draft the report and provide an update to the school board curriculum committee
- Committee chair establishes deadline for report completion and coordinates an update at a board curriculum committee meeting between February and June.
- Commence any necessary changes
- Coordinate professional development needs identified during review and update with the administrative team Professional Development Short Term and Long Term Committee.

Years 5 & 6: Implement and Monitor II & III
There are no formal review or reporting requirements during years 5 and 6 of the review cycle. This does not preclude action by the committee during these years if warranted. Instances in which actions may be needed include but are not limited to:
  - The implementation of any recommended changes made by the committee during the year four update
  - The revision of curriculum for assessments if determined during the year four update
o The coordination of professional development related to year four update recommendations

o National or state legislation that impacts the delivery or assessment of curriculum, within a timeframe that necessitates action.

During years 5 and 6, the curriculum directors and committee chair will discuss the need for any convening of the full review committee or creation of subcommittees as warranted. The committee chair should be prepared to consult with the newly appointed committee chair during year one of the next review cycle for the sake of continuity and a historical overview of the review committee’s work during the previous cycle.

Years 5 & 6 Checklist: Possible Implementation and Monitoring Tasks
All tasks are as-needed.

 Plan and implement redesign changes determined during the formal report during year four
 Coordinate redesign of curriculum documents and assessments if determined by year four update.
 Coordinate ongoing professional development needs if determined by year four update.
 Communicate redesign implications to educational administrators if determined by year four update
 In the event of national or state revisions to curriculum requirements, examine the timeline for implementation and plan accordingly.
 Committee chair communicates group work and documents to new committee chair at the beginning of the next review cycle.
Curriculum Writing: General Guidelines and Concerns

Documentation of Planned Courses

Documentation for each course is expected using a common template found in appendix D. Additionally, this document should be embedded on the syllabus page in the “blueprint course” within the Canvas learning management system so that it becomes available and part of the specific course regardless of who the instructor is. While instructors have leeway to plan the specifics of instruction for their courses, this course template provides a basis of common accountability for every course, listing the topics of study, standards, resources, and some of the assessment methods that comprise the course. Before you begin extensive course documentation during years 1-2 of the review cycle, please reach out to the curriculum directors for a usable electronic version of this document.

Writing Curriculum Development

The critical task at the outset of curriculum development is the process of K-12 mapping described in the year two review tasks (p. 18). The process of curriculum design is not linear, although one of the products of an effective curriculum review is a clearly sequenced K-12 instructional plan. The delineation of yearly topics and content depends on multiple considerations including the K-12 outcomes described by the review committee, state and national standards and recommendations for topics and content, consideration of how critical disciplinary skills and concepts will develop over time, and striking the right balance between insufficiently reinforcing prior learning and overemphasis.

Curriculum review teams are responsible for developing curriculum at the district level (K-12 course sequence), course level, and unit levels. These latter two involve documenting the key topics of each course K-12, describing the outcomes and big ideas within each course, and describing the course around units of study. The recommended methodology for this work is the Understanding by Design framework.

Understanding by Design

The most widely used process for curriculum design is the Understanding by Design process authored by Wiggins and McTighe. Most educators are familiar with this methodology, which came to prominence in the 1990s and has remained widely accepted best practice for curriculum design. The “backward design” methodology requires authors of curriculum to begin with the end in mind – resolving those understandings, dispositions, and skills that are the desired outcomes of instruction – and then work backward to sequence and design learning to the aim of achieving those ends.

While the curriculum director on the review committee will be familiar with this process and able to facilitate its use, it is strongly recommended that the committee chair as well as those who will be responsible for the oversight of the actual crafting of curriculum documents review and familiarize themselves with this process. A few of the key considerations of the
process will be highlighted in this guide but this is not a substitute for a thorough review of the process. It is recommended that those who will guide curriculum writing acquire and review:


The curriculum office has money for a few purchases of this text if needed, although many educators have this book already. In addition to this document, Wiggins and McTighe wrote several accompanying guides that highlight topics such as the creation of high-quality units, advanced concepts in creating and writing units, and authoring essential questions. These could be provided by the curriculum office on request.

Identifying Big Ideas and Essential Questions

Big Ideas

Throughout the literature on curriculum, the terms big ideas and big understandings are used interchangeably. The intention is to distill the scope of the course down to a handful (2-4) of key ideas that guide the content and assessment of the course. These are aligned to the course outcomes and instrumental in the development of essential questions (discussed below). Big ideas allow the teacher to view instructional design through a simplified framework. They are convenient for identifying discrete units of study over the course of semesters, trimesters, or quarters. They also serve to create a more focused dialogue between disciplines during the process of integrated design.

One consequence of the standards driven era is that many teachers have come to think of the scope and sequence in their courses as a collection of as many as dozens of discrete academic content standards or bits of eligible content. Because so much of curriculum has been conceptualized in this way for the past 30 years, it can be quite a challenge for an instructor to step back and attempt to identify the broad conceptual themes that are the foundation of the course. Teaching for deeper learning necessitates clear identification of the big ideas in each course. Designing intensive learning experiences for students with ample personal student input is quite simply impossible when the scope of course design is viewed in terms of dozens of content standards. Effective design of courses for deeper learning is predicated on clearly identifying 2 to 4 big ideas that will allow for opportunistic learning of content standards. It’s worth taking considerable time at the outset of course design or review to dialogue and refine the big ideas for the course. Ideally, all of the other aspects of curriculum design will flow from these.

David Perkins, in his book Future Wise, describes big understandings as having 4 broad characteristics. Big understandings are:

- “Big in insight: The understanding helps to reveal how our physical, social, artistic, or other worlds work.
• Big in action: The understanding empowers us to take effective action professionally, socially, politically, or in other ways.
• Big in ethics: The understanding urges us toward more ethical, humane, caring mindsets and conduct.
• Big in opportunity: the understanding is likely to come up in significant ways in varied circumstances.” (Perkins, 2014)

<table>
<thead>
<tr>
<th>Big Idea</th>
<th>Not a Big Idea, but part of the learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy</td>
<td>The American revolution, the bill of rights, voting</td>
</tr>
<tr>
<td>Energy</td>
<td>Heat, light, friction, electricity, renewability</td>
</tr>
<tr>
<td>Risk Assessment</td>
<td>Probability, statistics, confidence, prediction</td>
</tr>
<tr>
<td>Evidence</td>
<td>Verification, perspective, bias, sources</td>
</tr>
<tr>
<td>Living Things</td>
<td>Organisms, cells, ecosystems, genetics, evolution</td>
</tr>
<tr>
<td>Proportionality</td>
<td>Factors, ratios, divisibility, scale</td>
</tr>
<tr>
<td>Quantification</td>
<td>Counting, integers, fractions, arithmetic</td>
</tr>
<tr>
<td>Equity and Equality</td>
<td>The civil rights movement, imperialism, poverty</td>
</tr>
<tr>
<td>Story</td>
<td>Tragedy, comedy, narrative, voice</td>
</tr>
<tr>
<td>Wellness</td>
<td>Diet, exercise, sexuality, mental health</td>
</tr>
</tbody>
</table>

It’s tempting to imagine a perfect list of big ideas for a specific content area. Part of the reason for routine review is that these big ideas can change and be altered in response to context, instructor experience and perspective, and social conditions. Additionally, an idea that qualifies as part of the content in one discipline may represent a big idea that cuts across disciplines. One example of this is evolution. It is a specific and important foundational concept as it relates to the study of biology, with mechanisms that describe how organisms change over time. Defined more broadly as a process of change, the term evolution also applies to systems, economics, and other topics. It could in itself be a big idea. Additionally, big ideas can recur through the curriculum. Both 1st and 5th grades might see quantification as one of the big ideas in the math curriculum, with arithmetic as a key understanding. But the arithmetic operations that students learn in those grades, while similar, have distinct differences in terms of their application and prerequisite understanding. Likewise, democracy recurs throughout the social studies curriculum, and we should expect far more nuanced learning with regards to voting rights in 11th grade Civics than in 3rd grade social studies.

**Essential Questions**

McTighe and Wiggins (2013) advocate for the expression of big ideas in the form of essential questions during curriculum design. These essential questions can be helpful in marrying big ideas, key understandings, and course content. While big ideas provide a grand arc of conceptual understanding that runs through multiple courses, essential questions give curriculum designers and implementers more nuance in terms of how unit, lessons, and assessments can be designed. In traditional curriculum design, essential questions allow for the exploration of big ideas at the unit level.

McTighe and Wiggins (2013) offer the following characteristics of essential questions.
“A good essential question

1. Is open-ended; that is, it typically will not have a single, final, and correct answer.
2. Is thought-provoking and intellectually engaging, often sparking discussion and debate.
3. Calls for higher-order thinking, such as analysis, inference, evaluation, prediction. It cannot be effectively answered by recall alone.
4. Points toward important, transferable ideas within (and sometimes across) disciplines.
5. Raises additional questions and sparks further inquiry.
6. Require support and justification, not just an answer.
7. Recurs over time; that is, the question can and should be revisited again and again.” (p. 3)

It can be difficult for instructors to discriminate between the concepts of big ideas and essential questions. This can be muddied by literature on this topic which can espouse different meanings and approaches to these terms. Wiggins and McTighe later clarified their use of essential questions as having two purposes in writing curriculum. Essential questions can be overarching and thematic, or pertaining to the big ideas for the course, or topical, related to specific content within the course. Oftentimes, the concepts of big ideas and essential questions are used interchangeably in conversation, and while this may not be technically correct, it’s important to keep in mind that these both serve the purpose of allowing the instructor to design instruction focused on the critical concepts for the learner. For our purposes, in writing curriculum we will focus on crafting big ideas aligned to the handful of key broad concepts to each course, and then specify the content associated with each of these big ideas.

An example of how these might interact for grade 3 mathematics:

<table>
<thead>
<tr>
<th>Big Idea</th>
<th>Content</th>
<th>Big idea expressed as an overarching essential question</th>
<th>Content expressed as topical essential questions</th>
</tr>
</thead>
</table>
| Part-to-Whole Relationships   | • Fractions as part to whole expressions  
                                 | • Fractions as discrete numbers               | How can we measure and communicate about parts?  
                                 |                                               | • What are fractions and how do they help us communicate? 
                                 |                                               | • What’s in the space between the numbers on our number line? |

In short, it’s important to recognize that there are two types of essential questions and both should be used when documenting, designing, or rewriting curriculum. Overarching essential questions should be developed at the course level, meaning that there are a handful of overarching essential questions that guide the scope of the work in a course over a semester.
or year. Topical essential questions occur at the unit level, and are critical in establishing instructional outcomes, assessments, and instructional design. Looking back to p. 30, the examples that Perkins provides as “not a big idea, but part of the learning,” could in fact be thought of as ideal drivers for developing topical essential questions as they allude to content that would be a key part of the learning to develop a sophisticated understanding of the big ideas, which relate to overarching essential questions.

Wiggins and McTighe (2013, p.9) provide these examples of overarching and topical essential questions. In these examples, note the relationship between the overarching essential questions and topical essential questions. While overarching essential questions could recur through a number of units, topical essential questions reframe these with specificity to particular unit content:

<table>
<thead>
<tr>
<th>Overarching Essential Questions</th>
<th>Topical Essential Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Whose “story” (perspective) is this?</td>
<td>• How did Native Alaskans view the “settlement” of their land?</td>
</tr>
<tr>
<td>• How are structure and function related?</td>
<td>• How does the structure of various insects help them to survive?</td>
</tr>
<tr>
<td>• In what ways does art reflect, as well as shape, culture?</td>
<td>• What do ceremonial masks reveal about the Inca culture?</td>
</tr>
<tr>
<td>• How do authors use story elements to establish mood?</td>
<td>• How does John Updike use setting to establish a mood?</td>
</tr>
<tr>
<td>• What makes a system?</td>
<td>• How do our various body systems interact?</td>
</tr>
<tr>
<td>• What are common factors in the rise and fall of powerful nations?</td>
<td>• Why did the Soviet Union collapse?</td>
</tr>
</tbody>
</table>

For curriculum writers, a key understanding is that big ideas and essential questions are critical tools in establishing the scope of course design, as well as the specifics of content at the unit level. A good topical essential question leads to well defined student instructional outcomes, and big ideas and overarching essential questions contribute to cohesive course design and adherence to important disciplinary themes and practices.

We live in an age where the amount of information available on a given subject far outstrips the human capacity to retain it. Covering all of the related content for most topics is a fool’s errand. Developing meaning for students depends not on exposing them to as much information as possible but rather helping them develop frameworks for making sense of specific information when it is needed and incorporating new information as it emerges. Big ideas and essential questions are the foundation for instructors to build the habits of mind necessary for students to become competent practitioners of the different academic disciplines. Grasping this design for learning, in which instructors select and organize critical content while privileging students’ development of a larger thematic schema for making sense
of a discipline that will enable them to meaningfully incorporate additional information from their own learning, is a fundamental shift in organizing instruction for modern educators.

**Equity-Focused Curriculum Development**

As one component of developing “big ideas,” Hatboro-Horsham is committed to multicultural curricular reform, and will apply the *Five Dimensions of Multiculturalism* as an additional lens in the development and review of curriculum frameworks and instructional pedagogy. Developed by Dr. James Banks, the dimensions of multiculturalism guide educators to look beyond the additive approach of highlighting heroes and holidays, towards a more transformative approach inviting students to examine multiple ethnic perspectives and points of view, and helping them develop a deeper understanding of how knowledge is constructed.

Dr. Banks, in his book *Educating Citizens in a Multicultural Society*, describes the dimensions as follows:

- **Content Integration:** The curriculum is developed to include example and content from various cultures and groups to illustrate multiple perspectives about key concepts within the subject areas or discipline.
- **Knowledge Construction:** Curricular units invite students to investigate how biases and perspectives impact the way we construct knowledge about a topic.
- **Prejudice Reduction:** Resource selection is intentional about the inclusion of positive images of ethnic groups in materials and lessons are deliberately planned to support students to develop positive attitudes towards racial and ethnic groups that are different from their own.
- **Equity Pedagogy:** The instructional pedagogy varies and is mindful of instructional approaches that are effective in support of achievement for different types of learners.
- **Empowering School Culture and Social Structure:** The organizational culture in the classroom supports equity for students from diverse racial, ethnic and gender groups.

In addition to the five dimensions, Hatboro-Horsham School District will adopt a *Social Action Approach* to curriculum reform, combining efforts to transform the curriculum with activities to strive for social change. The *Social Action Approach* is aligned with the tenets of Deeper Learning in its emphasis on understanding real world problems and taking action to do something about them. Review committee members should take some time to review Banks’ work in more depth. A good overview is available at: [https://education.uw.edu/cme/view](https://education.uw.edu/cme/view). The review committee should not presume that all teachers involved in the writing of curriculum are familiar with this specific work or even general principles of equity as they relate to curriculum. It is critical that the committee members invested in curriculum writing convey these expectations clearly to everyone involved in writing.

**Establishing Measures: Assessment Review**

While multiple pathways can be established for determining the success of a curriculum review, one aspect lies at the heart of curriculum design: student assessments. The determination of outcome measures for the curriculum review team should include some
review of students’ performance on assessments. A good curriculum design is marked by the inclusion of several types of assessment while privileging assessments that require students to demonstrate transfer of learning to authentic contexts, and higher-order thinking. This privileging lies at the heart of deeper learning.

By no means should the curriculum review team attempt to define all of the assessments that occur in a given course. Most of these can and should be left to teacher discretion. Rather, the team should ask for evidence within the scope of course designs that two types of assessment conducive to measuring transfer of learning and higher-order thinking occur: academic prompts and performance tasks.

As described by Wiggins and McTighe (2005), there are several types of assessment that occur in effective curriculum design: informal checks for understanding, observation and dialogues, tests and quizzes, academic prompts, and performance tasks. The design of the first three should be left largely to the discretion of the course instructors; in many instances, instructors will elect to use tests and quizzes aligned to or part of resource packages. The curriculum review team must decide the extent to which academic prompts and performance tasks are present and make decisions about whether these will be explicitly designed as part of the review process, or a separate process for their development and implementation will be established, or existing practices are sufficient to evidence these assessment types and further work is not needed.

Performance tasks are “complex challenges that mirror the issues and problems faced by adults. Ranging in length from short-term tasks to long-term, multistage projects, they yield one or more tangible products and performances. They differ from academic prompts in the following ways:

- Involve a real or simulated setting and the kind of constraints, background noise, incentives, and opportunities an adult would find in a similar situation (i.e., they are authentic)
- Typically require the student to address an identified audience (real or simulated)
- Are based on a specific purpose that relates to the audience
- Allow students greater opportunity to personalize the task
- Are not secure: the task, evaluative criteria, and performance standards are known in advance and guide student work (Wiggins and McTighe, 2005, p. 153)

Several schools in Hatboro-Horsham have had success implementing performance assessments using the methodology recommended by Buck Institute for Education. Their website provides an exceptional overview of the process of developing high-quality performance tasks and is recommended for those involved in designing such tasks. These resources can be found on their website: http://www.bie.org/
Academic prompts are “open-ended questions or problems that require the student to think critically, not just recall knowledge, and to prepare a specific academic response, product, or performance. Such questions or problems

- Require constructed responses to specific prompts under school and exam conditions
- Are "open," with no single best answer or strategy expected for solving them
- Are often "ill structured," requiring the development of a strategy
- Involve analysis, synthesis, and evaluation
- Typically require an explanation or defense of the answer given and methods used
- Require judgment-based scoring based on criteria and performance standards
- May or may not be secure
- Involve questions typically only asked of students in school (Wiggins and McTighe, 2005, p. 153).

These types of assessment typically also allow for the evaluation of deeper learning competencies such as the 4 Cs (see p. 36).

Curriculum Mapping – Scope and Sequence

Coherent K-12 curriculum design relies on an explicit process of sequencing content to ensure thorough conceptual exposure for students that balances repetition and gradually increasing complexity. This prevents redundancies and key omissions, and maximizes learning for students. In short, effective curriculum design requires seeing the scope of K-12 curriculum as a cohesive program or whole, and not merely as a sequence of discrete grade-level courses driven by instructor whims and preferences. The curriculum is accountable to the needs of the student, as are its implementers. Establishing a sound K-12 sequence is a necessary precursor to sound course and unit design.

Curriculum mapping is a process of organizing curriculum content temporally, or roughly aligned to a yearly calendar. It is not a pacing guide but rather an attempt to lay out critical elements of course content sequenced over the instructional year.

Mapping is a necessary stepping stone between big ideas, content standards, and course design. There are many different types of maps. For a good overview, we recommend committee members charged with map design review Heidi Hayes-Jacob’s Mapping the Big Picture: Integrating Curriculum and Assessment, (ASCD, 1997). It is certainly not necessary to engage in all of the different mapping types described in this book, but committee members may find some of the tools useful. Minimally, review committees should produce a curriculum
content map (Hayes-Jacobs, 1997, Map G), but the additional step of aligning this content to essential questions will make for the most effective flow into course revision.

**Alignment of Standards**

Identifying the appropriate standards to guide curriculum design is a critical part of the review process.

Standards have become the basis of communicating key ideas for curriculum design. In the modern era, standards have also become intertwined with movements to improve school quality through high-stakes testing. All educators are familiar with the various sets of standards that set the foundation for key academic subjects like English language arts and mathematics and know that student performance on tests designed to measure student competency with these standards plays a huge role in how schools are perceived by the public. This bond between high-stakes tests and standards should not be allowed to poison educators against the idea of standards, as they represent incredibly valuable and useful resources for designing curriculum.

In addition to commonly tested disciplines, for areas of study not aligned to high stakes assessment there almost always exist sets of standards to guide curriculum design, and these often represent the best collective thinking of key organizations supporting good learning. Effective curriculum review requires identifying such standards and deliberating their use in curriculum design. In some instances, such alignment is not optional: it would be counterproductive to design a mathematics sequence far out of step with the Pennsylvania Core Standards for Math. Doing so not only risks the chances of student success on school accountability measures, but also complicates the task of resourcing the curriculum as many publishers design resources to align to standards.

**Pennsylvania and National Standards**

In recent years, the common core standards movement has resulted in unprecedented national curricular alignment in the United States. Prior to these standards, states were tasked by the federal government with the development of their own standards for key disciplines. While this did much to bring the various schools within states into alignment with their practices, it still presented vast differences between states in terms of when common content was introduced to students. In an increasingly mobile society, students were easily disadvantaged when moves occurred. The National Common Core Standards attempted to identify a clear sequence of content for students in English language arts and Mathematics and was eventually adopted by 45 states. A similar movement has occurred for science with the Next Generation Science Standards, although due to common political discomfort surrounding standards that cover content such as evolution and climate change, these standards have not enjoyed the same scope of acceptance.

Pennsylvania’s adoption of the Common Core standards involved developing a unique coding system while almost entirely maintaining the content and sequence of the standards. This Pennsylvania-specific implementation is called the PA Core Standards.
In addition to the disciplinary standards for English language arts and mathematics, Pennsylvania has developed and maintained standards for a number of different disciplinary areas:

- Arts and Humanities (including Creative Thinking and Expression, Dance, Music, Theatre, and Visual Arts)
- Business, Computer, and Information Technology
- Career Education and Work (including Career Acquisition, Career Awareness & Preparation, Career Retention & Advancement, and Entrepreneurship)
- Computer Science
- Driver’s Education
- English Language Arts
- Environment and Ecology
- Family Consumer Sciences
- Health, Safety, and Physical Education
- Mathematics
- Science and Technology and Engineering Education
- Social Studies
- World Languages
- Approaches to Learning Through Play
- English Language Development
- Reading and Writing in Technical Subjects
- Reading and Writing in History and Social Studies

Review of the associated Pennsylvania standards is critical to effective curriculum review. Updated versions of these standards can be found on the following website maintained by the Pennsylvania Department of Education: [www.pdesas.org](http://www.pdesas.org). This site also maintains curriculum frameworks for some disciplines as well as other resources which may be useful to the review committee and should be considered during review.

**Technology and Digital Literacy Standards**

The use of various technology has increased productivity and access to resources available to everyone and our instructional design must account for the impact technology has made in changing workplaces and communities. Effective design for deeper learning incorporates technology into the pedagogy. In addition to the essential competencies needed to make use of technology, students must also gain the mindsets needed to transfer learning into various contexts while considering issues of digital citizenship which are constantly being redefined as new technologies are introduced.

The International Society for Technology Education (ISTE) has developed standards for student technology use and has committed to updating these as new trends in societal use emerge. The current standards are organized around seven themes:
1. Empowered Learner
2. Digital citizen
3. Knowledge Constructor
4. Innovative Designer
5. Computational Thinker
6. Creative Communicator
7. Global Collaborator

A sound curriculum review should consider the role of technology in the learning and assessment process. These standards are recommended for review during such discussions. They can be found by visiting https://www.iste.org/standards.

The 4 Cs: Communication, Collaboration, Critical Thinking, and Creativity

With the onset of the 21st century, many education scholars began advocating for school emphasis on what were described as “soft skills,” or 21st century skills. Much of this advocacy was driven by recurring reports from business where employers were reporting a need for skill sets that traditional schools were not prioritizing: thinking skills like critical thinking, creativity, and problem-solving beyond specific math contexts, as well as people skills such as communication and teamwork.

Many schools began examining how best to equip students to meet these demands of the marketplace, which emphasized skill sets not taught through traditional disciplines. Even in instances where skills were explicitly taught (for example, use of the scientific method as one avenue for critical thinking), educators broadened their thinking to focus on transfer, or the degree to which explicit instruction is applied by students to different contexts. Because a student can apply the scientific method to an experimental design in science class, does this process support meaningful critical thinking for the student in non-science contexts?

A common framework for thinking about the skills is the 4 Cs framework. This defines these 21st century, job readiness skills as communication, collaboration, critical thinking, and creativity. A number of organizations have developed instructional recommendations, resources, and assessments aligned to these 4 Cs. We have adopted these as a valuable lens through which to view our instruction during the design of deeper learning. Because these are not typically part of the canon of traditional disciplines, during the curriculum design and review process, educators must pay special attention to ensure that instructional design and assessment incorporates aspects of these 4 Cs.

Resources

Thorough reviews of curriculum necessitate the examination of current resources, their condition, and their fitness for meeting renewed curriculum goals identified during year one of the curriculum review process. Weighing the need and then evaluating the range of available resources is a critical part of the review process, and occurs during the 2nd year of the review cycle. However, a significant risk to the curriculum review process exists when the goal of the entire process is misidentified as the selection of new resources. Committee members must be
wary of this mindset, which some team members may bring to the process. The goals and vision of the committee for instruction must guide the selection and recommendation of resources; it should never be the other way around. This is the primary reason that resource identification occurs in year two of the six-year cycle, to ensure that the committee makes a careful consideration of needs and establishes a clear instructional vision in year one, prior to considering resources. In instances of review where a substantial shift in philosophy and instructional approach are determined, this allows the committee to evaluate potential new resources in terms of their ability to support needed changes, but regardless of the degree of change in instructional practices determined by the committee, resource identification must be guided by a clear sense on the part of the committee of its vision for the curriculum.

Equity-Focused Selection of Curriculum Resources

Hatboro-Horsham School District is committed to equity and cultural proficiency in all of its curricular practices. One aspect of this dedication is ensuring that any resource presented to the school board for approval meets community standards and expectations for accurate depictions of peoples and cultures in both the modern world and throughout history. Additionally, this commitment requires that the students in our community experience themselves in our schools. The scope of our curriculum resources should strive to ensure that all students have the experience of seeing themselves and their own family cultures and histories, as well as have the opportunity to engage in the experiences of diverse peoples and cultures. While this is of particular import in the humanities, it also implies attention made across all content and courses to present and highlight practitioners and professionals in those fields in diverse and inclusive ways. When requesting resources, those making the request should be prepared to address the fitness of new resources with regard to these expectations for building principals, the curriculum directors, the school board curriculum committee, and the board of school directors.

Resource Adoption Timeline

One of the purposes of the curriculum review cycle described herein is to ensure adequate planning for budgetary expenses related to the renewal of curriculum resources. For this reason, it is important that any review process that will likely result in a significant outlay of funding for classroom resources be prepared to present these needs for the approval of the curriculum directors, school board curriculum committee, and then the full school board by March 1 in year 2 of the 6-year cycle. While updates to state law in 2018 provide for more flexibility for school boards in approving curriculum resources at any time during the year, those involved in implementing curriculum reviews must realize that such requests must occur reasonably within annual budgetary cycles. If any curriculum review committee believes that unusually large expenses for curriculum renewal may be incurred, it is important to talk to the curriculum directors during year one of the review cycle to allow for long-term budget planning.
In 2017, with input from the faculty in every building, Hatboro-Horsham adopted this “portrait of a high school graduate” as part of its work to transform classrooms into places of deeper learning. These characteristics were identified as critical characteristics and dispositions for Hatboro-Horsham graduates:

1. **Lifelong Learners**
   Lifelong learners have the desire to learn and the capacity to be self-directed in their learning. They are diligent learners who manage their time effectively in the pursuit of their ongoing educational needs. They are proactive in anticipating the need for new learning as well as identifying data and information needed for thoroughly exploring solutions. They have the capacity to select appropriate resources for their learning and capably identify credible sources of information.
2. **Global Citizens**
Global Citizens effectively communicate across media to meet specific needs of a variety of audiences. They demonstrate cultural awareness and appreciate diversity. They exhibit social responsibility within their various communities and are and conscientiousness in their actions. They are effective advocates for others. They possess strong collaboration and teamwork skills. They are aware of the impact of their words and actions in both digital and traditional modes of communication. They are open-minded and good listeners. They balance these qualities with the abilities to compromise and advocate for their own needs.

3. **Resilient**
Resilient students exhibit emotional health, confidence, self-reliance, and are intrinsically satisfied with their circumstances, grounded in the belief that they can positively effect change for their own betterment. They take steps to be happy in their lives. They adapt as circumstances change and are flexible in their pursuit of solutions. When faced with adversity or failure, they possess persistence, grit, and determination in their ongoing push to resolve problems and find success.

4. **Purposeful and Passionate**
Purposeful and passionate individuals exhibit strong character and leadership skills. They are compassionate and exhibit empathy in their interactions with others. They are mindful, self-aware, reflective, and possess emotional intelligence. They set goals and plan effectively to meet those goals. They take ownership of projects and problems and are reliable in their work. They deeply engage in tasks and are empowered to advocate for change. They are characterized by sincerity in their deeds and actions. They are attuned to their own strengths and desires, and engage in work that is meaningful to them.

5. **Academic Mastery**
Students who exhibit academic mastery have a grasp of the essential disciplinary knowledge and skills that comprise a well-rounded intellectual. They adeptly discern the essential information needed to understand a problem. They are skillful at identifying credible sources of information and observant of standards for fair use and citation when using the work of others. Their work and interactions are guided by highly evident literacy and numeracy.

6. **Divergent and Innovative Thinkers**
Divergent and Innovative thinking applies critical thinking and creativity toward problem solving. Students are observant, ask questions, and actively seek improvement to existing strategies and solutions. They are curious about the rules, systems, and processes that frame a problem. They are capable and resourceful in leveraging technologies to manage information and solutions. They are able to perceive the systems that drive processes and identify components for improvement when solving systemic problems. They value unusual and diverse viewpoints in seeking solutions and are comfortable with challenging the status quo.
Bibliography
Works referenced in this document, and recommended resources for curriculum review committees.


Buck Institute for Education. [http://www.bie.org/](http://www.bie.org/)


Mission Statement

The mission of the Hatboro-Horsham School District Office of Curriculum and Instruction is to lead the ongoing improvement of our practices in the domains of our educational programs, instruction, assessment, and professional development.

Philosophy

We believe that a sound curriculum is world class, viable, visible, and guaranteed to the students of Hatboro-Horsham public schools. That is to say that we believe:

- Our curriculum should be world class, in that we can provide the students of the community of Hatboro-Horsham with an educational experience that is second to none and which will result in student preparedness for a range of post-secondary and career opportunities;
- Our curriculum is viable, in that it considers the essential content and skills mandated by Pennsylvania state standards and leading educational organizations and is systemically planned to ensure that students can learn these skills and content;
- Our curriculum is visible, in that all professionals in our organization can access instructional content and assessment information for all of our programs and all members of our community can easily access instructional content and learning outcomes for those programs;
- Our curriculum should be guaranteed to the extent that we will take steps to ensure that our intended curriculum aligns with our implemented curriculum, assess the learning of students to ensure that their attainment matches the intention of our curriculum, and take steps to ensure that all students have the equity of opportunity to learn aligned with their individual learning needs.

Our responsibilities include several practices that occur across the domains of educational programs, instruction, assessment, and professional development. These include:

1. **Communication:** Clearly communicating our district and office goals and practices,
2. **Fidelity:** Assuring organizational fidelity with regard to those goals and practices,
3. **Equity:** Ensuring that those goals and practices provide equity and access to high-quality educational programs for all learners,
4. **Feedback:** Measuring the progress of those goals and practices relative to our students through the provision and scrutiny of data,
5. **Technology:** Maintaining technological tools and systems that enable excellence and improvement within the domains,
6. **Research:** Researching methodology, trends, and best practices with regards to the curricular domains, and
7. **Quality:** Assuring organizational commitment to high-rigor, intellectually engaging practices and clear performance goals for all learners within the four curricular domains.
Work of the Office of Curriculum and Instruction

Each of the four domains includes discrete responsibilities that guide the work of the office of curriculum and instruction.

1. Educational Programs
   - K-12 design, articulation, implementation, coordination, and review of all courses, making visible and accessible for our students and community the broad design aspects of our educational programs.
   - Cultivation of fidelity within educational programs by all educators charged with delivery and monitoring of those programs.
   - Active promotion of the achievement of the educational aims of our programs through the leveraging of interdisciplinary connections for our students.
   - Ongoing alignment of our educational programs to changing standards and commitment to designing standards-based educational programs for our students.
   - Guidance of sound fiscal decisions for resources within our educational programs.

2. Instruction
   - Determining, developing, and evaluating best pedagogical practices for those charged with delivery of our educational programs with the aim of maximizing student learning and engagement.
   - Assuring that our educational programs are instructed with fidelity.

3. Assessment
   - Collaboratively designing common measures of assessment of student learning within our educational programs as part of a guaranteed curriculum.
   - Assuring timely administration and scoring of common assessments with the aim of providing educators and learners with relevant feedback with which to evaluate progress relative to educational programs and instructional practices.
   - Monitoring and adjusting to the needs of our students and teachers during the ongoing and continuous improvement of practices.
   - Promoting both formative and summative methods of assessment of student learning as valuable data sources for adjusting to student needs.
   - Serving as a resource to our organization with regards to standardized assessments.

4. Professional Development
   - Overseeing the methods of improvement for district goals within each of the four curriculum domains.
   - Providing resources and opportunities for educators to improve practices within the four curriculum domains.
   - Monitoring and adjusting professional development practices in response to the needs of our staff and students.
   - Identifying and modeling best practices with regards to staff development.
## APPENDIX B: THE CURRICULUM REVIEW CYCLE

### SCHOOL DISTRICT OF HATBORO-HORSHAM
Curriculum Review and Renewal Schedule 2018-2024

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Appendix C: New Textbook/Resource/Software Request Form

School District of Hatboro-Horsham
Office of Curriculum and Instruction

NEW TEXTBOOK/SOFTWARE REQUEST FORM

This form is to be used for purchase of new resources that must be approved by the Office of Curriculum and Instruction. Note that all new print material must also be approved by the Board of Directors.

GENERAL INFORMATION

Date of Request:
Name of Person Initiating Request:
Name of Selection Committee Members:
Curricular Area:
Subject/Course:
New Course Existing Course
Phase (if applicable): Academic AP Accelerated Honors College Prep
Grade Level(s):

COMPLETE THE FOLLOWING INFORMATION FOR ALL PRINT MATERIAL REQUESTS

Title:
Textbook:
Supplements:
Readability (Rate):
Scale Used:
Copyright Date/Edition:
ISBN:
Vendor Name/Address/Phone Number/Name of Representative (if quote was obtained include with form):

Website Address:
Cost per Unit:
Number of Units:
Total Estimated Cost (add 10% estimated shipping cost):

Please answer all of the following:

Explain how this print material enhances curriculum and standards.

How will it support student learning?

What is the target group (who are the students that will most benefit)?

Is there ancillary student software that supports text?
Is there an online version to be purchased? If yes, complete the software section below.

**COMPLETE THE FOLLOWING INFORMATION FOR ALL SOFTWARE AND WEB-BASED RESOURCE REQUESTS**

Software Program Title:
Copyright Date/Software Version:
Platform:
System Requirements/Specifications:
Software Media:
Vendor Name/Address/Phone number/Representative:

Website Address:
License Fees:
Number of Licenses/Users:
Total Estimated Cost (add 9% estimated shipping cost):

**Please answer all of the following:**

Explain how this software enhances the curriculum and standards?

How it will support student learning?

What is the target group (who are the students that will most benefit)?

Does this require hardware? If so, please list.

**ADMINISTRATOR APPROVAL**

_________________________________  __________________________
Building Principal                                                                    Date Approved

_________________________________  __________________________
David Weber/Susan Vaites                Date Approved
Directors of Curriculum
Appendix D: Curriculum Documentation Template

Hatboro-Horsham School District Course Curriculum

**Title of Course:** Click or tap here to enter text.  
**Grade(s):** enter text.

**Department:** Choose an item.

**Authors:** Click or tap here to enter text.  
**Date of last revision:** date.

**Core Instructional Resources:** Click or tap here to enter text.

**Overarching Essential Questions:** Click or tap here to enter text.

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<th>No. of Weeks:</th>
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<td>Big Ideas and Topical Essential Questions:</td>
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<td>Content (brief description of unit):</td>
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<td>Student Understandings (Skills and Competencies):</td>
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<td>Standards:</td>
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<td>Instructional Resources (texts, software, other):</td>
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<td>Assessments:</td>
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<td>Instructional Resources (texts, software, other):</td>
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<td>Assessments:</td>
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Appendix E: Collected Annual Curriculum Review Task Checklists

Year One Checklist: Critical Tasks that Inform the Curriculum Report

☐ Curriculum Directors, in consultation with the Director of Elementary and Secondary Education and the Director of Special Education, recommend to the superintendent members of the review committee (prior to September).

☐ The committee convenes, elects a chair, and plans for year one of the review, establishing timelines for work and delegating responsibility for these tasks to committee members (by October 1). Subcommittees may be organized to facilitate these tasks. The committee must immediately make decisions around the extent to which the following will be part of the review (starred items are mandatory for all reviews):

☐ Overview of existing K-12 courses and electives*
☐ Student performance data*
☐ Listing of instructional resources*
☐ Determine need for/use of focus groups
☐ Determine need for/use of electronic surveys
☐ Determine need for/use of informal stakeholder interviews
☐ Determine need for external curriculum audit
☐ Gather relevant state standards*
☐ Consider use of other standards, such as national standards from professional organizations*
☐ Review research and other literature relevant to the review*
☐ Identify national experts who could inform the committee’s work
☐ Identify conferences for committee members and others for which attendance would inform the review.
☐ Identify high-performing districts for the purposes of visiting or exploring their practices
☐ Gathering artifacts from other districts who recently conducted reviews of their curriculum

☐ Re convene as needed for updates and to ensure that all aspects of the current status, identification of standards, and exploration of best practices is complete by the end of semester 1 of year 1 (an exception to this would be an external audit, which may run well into the second semester)

☐ Establish meetings and timelines for the group to identify a philosophy of instruction for the review
☐ Establish a timeline and delegate responsibility for the crafting of the curriculum report (the report is to be completed by the end of April)

☐ Forward the curriculum report to the superintendent, assistant superintendent, and administrative Curriculum Oversight Committee for preview (on completion)

☐ Communicate long-term estimates regarding professional development to achieve the committee’s vision to the district administrators Professional Development Long Term and Short-term Committee (on completion)

☐ Arrange with the curriculum directors to present the curriculum report at the May or June School Board Curriculum Committee meeting

☐ Present the report to the School Board Curriculum Committee accompanied by a 15-20-minute presentation summarizing the report

☐ Develop a formal process for sharing committee work, direction, and anticipated changes with the community. The method of this communication is at the discretion of the review committee but should allow for community feedback

☐ If needed, discuss summer curriculum writing hours with the curriculum directors to begin year 2 review cycle processes
Year Two Checklist: Critical Tasks that Inform the Establishment of Outcomes, Writing of Curriculum, and Selection and Recommendation of Resources

- Committee meets after board curriculum committee approves curriculum report to draft K-12 student outcomes, and
- Committee establishes subcommittee for curriculum writing, and
- Committee establishes subcommittee for resource review and selection.
- Committee establishes timelines for subcommittees and establishes regular processes by which these committees will report progress to committee chair for the purpose of coordinating work

**Concurrent Processes**

- Curriculum writing subcommittee begins by mapping curriculum K-12
- Review critical aspects of documentation with curriculum writing committee members; ensure appropriate templates are used and Canvas blueprint access is given as needed
- Review relevant aspects of curriculum report and vision with curriculum writers
- Determine the extent to which performance tasks and academic prompts will be developed or revised by curriculum writers
- Designate appropriate state and national standards for curriculum writers
- Review aspects of curriculum philosophy and vision with resource review subcommittee
- Resource review subcommittee solicits samples for review from vendors whose products they believe would be a good fit
- Resource review subcommittee coordinates piloting of potential new resources as appropriate
- Resource review subcommittee recommends resources for adoption to curriculum review committee
- On approval by the full curriculum review committee, resource review subcommittee initiates the new resource approval sequence.

- Coordinate specifics of professional development needs as they coalesce with the district administrators Professional Development Long Term and Short Term Committee
- Pending approval by the full school board, ensure the ordering and distribution of any new resources occurs in timely fashion.
- Consider communications to families and community stakeholders as warranted to describe curriculum and resource updates.
- Complete aspects of curriculum writing and coordinate communication to teachers aligned to professional development not later than August 1 (prior to year 3).
- Determine the measurements that will be used to evaluate the success of any curriculum changes. Delegate responsibility and timelines for creating and implementing these various measures to committee members. These tasks will be critical to your four processes and depending on the measures, may require some actions during year three of the review cycle (by start of year 3).
Year 3 Checklist: Implementation Tasks

- Coordinate ordering of any approved new resources with the Curriculum Office.
- Develop a system to track the delivery and classroom distribution of any new resources by building and teacher.
- Coordinate with building principals or department heads the delivery of all new resources to the teachers and classrooms that should have received them. Look specifically to see if any classrooms that have been added since the order was placed.
- Determine the need for and extent of public communication about curriculum and resource changes to stakeholders such as families and other community members.
- Ensure completion of all written curriculum documents by August 1, and communicate them to all teachers and other stakeholders (this step should align with professional development and may need to occur well prior to this point).
- Communicate all necessary information for the proper monitoring of curriculum implementation to all education administrators.
- Review the measures that the curriculum committee will use to assess the success of the curriculum review, and ensure that any necessary processes for the collection of data for those measurements can occur at the optimal moments.
Year Four Checklist: Formal Review, Redesign and Associated Tasks

- Committee chair communicates to committee responsibilities for data collection aligned to the assessment of the review (meeting convened if necessary)
- Designees complete data collection tasks by the end of semester 1
- The committee convenes early in semester two to review data, interpret results, determine recommendations for changes if needed
- Designate committee members to draft the report and provide an update to the school board curriculum committee
- Committee chair establishes deadline for report completion and coordinates an update at a board curriculum committee meeting between February and June.
- Commence any necessary changes
- Coordinate professional development needs identified during review and update with the administrative team Professional Development Short Term and Long Term Committee.

Years 5 & 6 Checklist: Possible Implementation and Monitoring Tasks

All tasks are as-needed.

- Plan and implement redesign changes determined during the formal report during year four
- Coordinate redesign of curriculum documents and assessments if determined by year four update.
- Coordinate ongoing professional development needs if determined by year four update.
- Communicate redesign implications to educational administrators if determined by year four update.
- In the event of national or state revisions to curriculum requirements, examine the timeline for implementation and plan accordingly.
- Committee chair communicates group work and documents to new committee chair at the beginning of the next review cycle.
Appendix F: Deeper Learning: A Practitioner’s Synopsis for the HHSD Community

David M. Weber, ED.D.

What is Deeper Learning?

Beginning in 2015-16, Hatboro-Horsham school district teachers have been asked to engage in transforming their teaching practices to align with deeper learning. This shift was initiated partially in response to mounting public discourse asking schools to reconsider how students are prepared for citizenship and the workplace, and partially in preparation for a multi-year technology initiative that will provide most students with a personal computer for learning. With the planned introduction of student technology, we sought to define a pedagogical course compelling enough to transform learning while keeping technology in the service, and not at the center, of that transformation. “Deeper learning” is the shorthand we use to describe that pedagogy.

Deeper learning is “the mastery of core academic content, including foundational domain knowledge, concepts, and modes of inquiry in the humanities, mathematics, sciences, and arts that form the building blocks for further study and skill specialization. [It is] The academic ability and predilection to continue to learn and to apply and transfer knowledge effectively through higher-order skills, such as critical thinking, problem solving, communication, collaboration, and self-directed learning.” It is the prioritization of the development of these latter higher-order skills, students’ ability to transfer knowledge, and the predilection for continuous learning that marks the key shift between traditional models of schooling and deeper learning.

Much of the literature on deeper learning discusses “the 4 Cs” of communication, collaboration, critical thinking, and creativity. Some sources identify additional “Cs” of citizenship, character, and content mastery. Common to all is the development of student capacity to plan and engage in learning independently, having agency in determining how learning will occur and be demonstrated. This sets the table for a future where the ongoing acquisition of new knowledge and skills will define long-term success in any work or career.

The literature also stresses student engagement in identifying and solving authentic “real world” problems, that is, problems grounded in the community, novel problems, or other work that requires consideration of characteristics common to actual workplace settings. Solving such problems requires students to engage with wider audiences than within the school, reaching out to experts and others with knowledge or a stake in problem outcomes as well as preparing to present their learning to others beyond teachers and fellow students and in spaces beyond the classroom. Finally, several sources position technology resources as necessary for students to acquire real world-skills and fully engage in both collaboration and self-directed learning. For some noteworthy definitions from noted deeper learning proponents, see Appendix G.

Instructional Implications of Deeper Learning

During 2016-17, teachers were introduced to a framework for instructional design known as Trudacot: Technology Rich Unit Design and Classroom Observation Template, and in 2017-18, HHSD administrators...

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began using this template to provide walkthrough feedback to teachers. The authors of the framework, Scott McLeod and Julie Graber, recently renamed the framework the “4 Shifts” framework, reorganizing the areas for feedback around four shifts that define school transformation and deeper learning. The most current version of the framework can be found in appendix H.

The four shifts are described as:

1. Higher-level thinking  
2. Authentic work  
3. Student agency  
4. Technology infusion

**Hatboro-Horsham School District’s Portrait of a Graduate**

During the 2016-17 school year, Hatboro-Horsham educators engaged in the work of deeper learning by taking time as a building to craft a “portrait of a graduate,” a process of beginning with the end in mind where the desired characteristics of our students are positioned as the outcomes of the scope of the time in our schools. All schools’ work was combined into one common district portrait. Deeper learning can be viewed as the path to developing these characteristics, and there exists substantial overlap between the way these are described and the processes commonly attributed to deeper learning. For a full description of each element of the HHSD portrait of a graduate, see page 38.
Appendix G: Definitions of Deeper Learning from Leading Proponents

"Teaching Differently, Learning Deeply" (Jal Mehta & Sarah Fine, in Kappan, 2012) offers the following definition of Deeper Learning (p. 33 & 35):

"Students are treated as active meaning makers with the capacity to do interesting and valuable work now. To engage with a subject, in this view, is not simply to receive knowledge but also to create it, mirroring the adult world of historians, movie producers, and other creative professionals. Accordingly, the purpose of school is not so much to prepare students for a hypothetical future as to support them in engaging with the complex challenges that professional work at its best entails. The approach is rooted in a profound respect for who students are and what they can do...[Deeper learning is] a shorthand term for the skills, understandings, and dispositions that develop as a result of engaging in cognitively ambitious tasks."

Here is another definition to consider, from Deeper Learning by Monica R. Martinez and Dennis McGrath (2014):

[Deeper Learning] fully encompasses the educational goals that, taken together, constitute the foundation for developing the single most important ability students should possess: the capacity for learning how to learn. In an ever-changing world-one in which knowledge and its applications have the potential to shift almost daily-nothing is more valuable. More specifically, deeper learning is the process of preparing and empowering students to master essential academic content, think critically and solve complex problems, work collaboratively, communicate effectively, have an academic mindset, and be self-directed in their education. While all of these are vital components of deeper learning we cannot emphasize enough the importance of the final element on this list: self-direction. Students are empowered to be the leaders of their own educational lives are capable of embodying a desire to learn unmatched by any that could be instilled by a parent or teacher" (pp. 3-4).


"Deep learning tasks redesign learning activities to:

1. Restructure students' learning of curricular content (such as national curriculum goals or standards) in more challenging and engaging ways made possible by digital tools and resources.

2. Give students real experiences in creating and using new knowledge in the world beyond the classroom.

3. Develop and assess key future skills, what Michael has called the 6 Cs:
   
   • **Character education** - honesty, self-regulation and responsibility, hard work, perseverance, empathy for contributing to the safety and benefit of others, self-confidence, personal health and well-being, career and life skills.
   
   • **Citizenship** - Global knowledge, sensitivity to and respect for other cultures, active involvement in addressing issues of human and environmental sustainability.
• **Communication** - communicate effectively orally, in writing and with a variety of digital tools; listening skills.

• **Critical thinking and problem solving** - think critically to design and manage projects, solve problems, make effective decisions using a variety of digital tools and resources.

• **Collaboration** - work in teams, learn from and contribute to the learning of others, social networking skills, empathy in working with diverse others.

• **Creativity and imagination** - economic and social entrepreneurialism, considering and pursuing novel ideas, and leadership for action."

**Most Likely to Succeed** by Tony Wagner and Ted Dintersmith (2015) offers the following characteristics common to successful school programs (p. 205):

"Students:

• attack meaningful, engaging challenges  
• have open access to resources  
• struggle, often for days, and learn how to recover from failure  
• form their own points of view  
• engage in frequent debate  
• learn to ask good questions  
• collaborate  
• display accomplishments publicly  
• work hard because they are intrinsically motivated"
Appendix H: 4 Shifts Framework (Formerly the Trudacot Framework)
From McLeod & Graber (2018), https://docs.google.com/document/d/1COUR5p1E1gi-r8Hk0WXfWzVX3Fw6fSNDvHvggVBJMc/edit

**Higher-level thinking.** Deeper learning schools are moving from an overwhelming emphasis on students mostly doing lower-level thinking tasks - factual recall and procedural regurgitation - to students more often engaging in tasks of greater cognitive complexity - creativity, critical thinking, problem-solving, and effective communication and collaboration. In other words, students are living more often on the upper levels of Bloom’s taxonomy (or Webb’s Depth of Knowledge wheel) than the lower ones.

### A. Deeper Thinking and Learning

- **Domain Knowledge.** Is student work deeply rooted in discipline-specific and -relevant knowledge, skills, and dispositions?
  - Yes / No / Somewhat
  - **Deeper Learning.** If yes, is student work focused around big, important themes and concepts that are central to the discipline rather than isolated topics, trivia, or minutiae?
    - Yes / No / Somewhat
- **Critical Thinking.** Do learning activities and assessments allow students to engage in deep critical thinking and analysis?
  - Yes / No / Somewhat
- **Problem Solving.** Do learning activities and assessments allow students to engage in complex and messy (not simple) problem solving?
  - Yes / No / Somewhat
- **Creativity.** Do students have the opportunity to design, create, make, or otherwise add value that is unique to them?
  - Yes / No / Somewhat
- **Metacognition.** Do students have the opportunity to reflect on their planning, thinking, work, and/or progress?
  - Yes / No / Somewhat
  - If yes, can students identify what they’re learning, not just what they’re doing?
    - Yes / No / Somewhat
- **Assessment Alignment.** Are all assessments aligned cognitively with standards, learning goals, instruction, and learning activities?
  - Yes / No / Somewhat

**Authentic work.** Deeper learning schools are moving from isolated, siloed academic work to environments that provide students more opportunities to engage with and contribute to relevant local, national, and international interdisciplinary communities. Students begin fostering active networks with individuals and organizations for mutual benefit.

### B. Authentic Work

- **Real or Fake.** Is student work authentic and reflective of that done by experts outside of school?
  - Yes / No / Somewhat
- **Authentic Role.** Are students asked to take on an authentic societal role as part of their learning?
  - Yes / No / Somewhat
- **Domain Practices.** Are students utilizing authentic, discipline-specific, practices and processes?
  - Yes / No / Somewhat
- **Domain Technologies.** Are students utilizing authentic, discipline-specific tools and technologies?
  - Yes / No / Somewhat
- **Research and Information Literacy Strategies.** Are students utilizing authentic, discipline-specific research, inquiry, and information literacy strategies?
  - Yes / No / Somewhat
- **Authentic Assessment.** Are students creating real-world products or performances for authentic audiences?
  - Yes / No / Somewhat
  - *Contribution.* If yes, does student work make a contribution to an audience beyond the classroom walls to the outside world?
    - Yes / No / Somewhat
- **Assessment Technology.** Are digital technologies being used in authentic ways to facilitate the assessment process?
  - Yes / No / Somewhat

**Student agency.** Deeper learning schools are moving from classrooms that are overwhelmingly teacher-controlled to learning environments that enable greater student agency - ownership and control of what, how, when, where, who with, and why they learn. Student agency allows for greater personalization, individualization, and differentiation of the learning process.

C. Student Agency and Personalization

- **Learning Goals.** Who selected what is being learned?
  - Students / Teachers / Both
- **Learning Activity.** Who selected how it is being learned?
  - Students / Teachers / Both
- **Assessment of Learning.** Who selected how students demonstrate their knowledge and skills and how that will be assessed?
  - Students / Teachers / Both
- **Talk Time.** During the lesson/unit, who is the primary driver of the talk time?
  - Students / Teachers / Both
- **Work Time.** During the lesson/unit, who is the primary driver of the work time?
  - Students / Teachers / Both
- **Interest-Based.** Is student work reflective of their interests or passions?
  - Yes / No / Somewhat
- **Initiative.** Do students have the opportunity to initiate, be entrepreneurial, be self-directed, and/or go beyond given parameters of the learning task or environment?
  - Yes / No / Somewhat
- **Technology Selection.** Who selected which technologies are being used?
  - Students / Teachers / Both
- **Technology Usage.** Who is the primary user of the technology?
  - Students / Teachers / Both
Technology infusion. Deeper learning schools are moving from local classrooms that are largely based on pens/pencils, notebook paper, ring binders, and printed textbooks to globally-connected learning spaces that are deeply and richly technology-infused. The new affordances of mobile computing devices and online environments allow the first three shifts mentioned here to move into high gear.

D. Technology Infusion

- **Communication.** How are students communicating?
  - Alone / In pairs / In triads / In groups larger than 3
  - If with others, with whom? (circle all that apply)
    - Students in this school / Students in another school / Adults in this school / Adults outside of this school
- **Communication Technologies.** Are digital technologies being used to facilitate the communication processes?
  - Yes / No
  - If yes, in which ways? (circle all that apply)
    - Writing, photos and images, charts and graphs, infographics, audio, video, multimedia, transmedia
- **Collaboration.** How are students working?
  - Alone / In pairs / In triads / In groups larger than 3
  - If with others, with whom? (circle all that apply)
    - Students in this school / Students in another school / Adults in this school / Adults outside of this school
  - If with others, who is managing collaborative processes (planning, management, monitoring, etc.)?
    - Students / teachers / both
- **Collaboration Technologies.** Are digital technologies being used to facilitate collaborative processes?
  - Yes / No / Somewhat
  - If yes, in which ways? (circle all that apply)
    - Online office suites, email, texting, wikis, blogs, videoconferencing, mind mapping, curation tools, project planning tools, other
- **Technology Adds Value.** Does technology add value so that students can do their work in better or different ways than are possible without the technology?
  - Yes / No / Somewhat
- **Technology as Means, Not End.** When digital technologies are utilized, do the tools overshadow, mask, or otherwise draw the focus away from important learning?
  - Yes / No / Somewhat
- **Digital Citizenship.** Are digital technologies utilized by students in both appropriate and empowering ways?
  - Yes / No / Somewhat