# Branford Public Schools Curriculum Development and Revision Process

# Philosophy

The Branford Public Schools believes that...

- content knowledge must be organized into meaningful patterns in order for students to retain what they have learned
- students must have an ample opportunity to apply their knowledge in a variety of authentic contexts and conditions
- effective curriculum must focus on providing opportunities for students to transfer their learning to novel situations, within and across content areas, as well as in future learning
- student learning outcomes must be prioritized so that in-depth learning can take place
- curriculum based on a backward design process ensures that learning is focused on deeper understandings and transfer of learning
- student understanding is deepened when instruction is based on authentic experiences that are not found in textbooks or activity-based learning
- multiple perspectives and experiences generate better solutions, so educators can develop more powerful curriculum by working collaboratively
- curriculum should be revised continuously and will be reviewed regularly against design standards and intended outcomes for students
- evidence of student understanding is revealed through performance
- teachers are coaches of understanding, not purveyors of content

# Backward Design

Backward design is based on the idea that planning is best done by starting with the desired results and the transfer tasks that embody the goals. It is a design approach that results in purposeful thinking about curriculum planning from a micro lens, as well as programmatic reform from a macro level. Looking at the outcomes first results in coherently-designed curriculum units, performance assessments, and classroom instruction. Within this framework, understanding is built by identifying the content that students will acquire (important knowledge and skills), make meaning of (big ideas; key principles and concepts), and transfer (application of learning to new situations). The primary goal of backward design is student understanding, which is revealed when students autonomously transfer their learning. There are six indicators of students' understanding--the capacity to *explain, interpret, apply, shift perspective, empathize,* and *self assess.*

**The Three Stages of Backward Design**
- Stage 1: Desired Results (Establishing the Goals)
- Stage 2: Evidence (Determine Acceptable Evidence)
- Stage 3: Learning Plan (Instructional Activities and Formative Assessments)

# Curriculum Development Structure

Branford's curriculum development structure has three components:
1. the District Curriculum Council
2. K-12 vertical teams, comprised of teachers, administrators and coaches, for each content area
3. grade-level/content-specific curriculum committees

Each group will be charged with the responsibilities outlined below.

Curriculum development and modification shall be guided by the following:
1. analysis of student assessment data (trend data)
2. adoption or revision of new state standards
3. legislative requirements
4. the needs and interests of all students
5. the mobility of the District's population
6. vertical alignment of curricula

## District Curriculum Council

The council will...
1. determine essential components of a contemporary, understanding-based curriculum
2. adopt a curriculum design template that reflects the essential components of an understanding-based curriculum
3. minimize the substantive changes that may require new staff, textbooks, training or materials

## K-12 Vertical Content Teams

Every content area will have a vertical team with representatives from different levels. Members will be selected by building-level administrators, in concert with curriculum coordinators.

Vertical teams for content areas will be as follows: English-Language Arts, Mathematics, Science, Social Studies, Health/PE, World Language, Arts, Library-Media.

These teams will...
1. develop a guiding document that will describe the discipline's philosophy
2. determine content-area transfer goals
3. meet at least once annually to analyze and discuss curricular needs
   a. content areas that are in their initial development year will be provided with release time throughout the school year, as well as time for summer curriculum work
4. analyze district data and review student performance
5. establish vertical alignment of assessments
6. develop proposals for curriculum revisions (once an established curriculum has been approved)
   a. the District Curriculum Council must approve these proposals

**Grade-Level/Content-Specific Curriculum Committees**

The primary responsibility of the grade-level/content-specific committees is to develop or revise grade-level or course-specific units of study. This work will be submitted for approval to the BOE.

**New Courses at Branford High School**

The process for adopting a new course is as follows:
1. the Vertical Team will make a recommendation to CASC
2. CASC will follow its current protocol, where various stakeholders are involved in the process
3. once the course is developed, it will be reviewed by the Curriculum Coordinators
4. the new course will be presented to the BOE for consideration and approval

**Textbook Adoption Process**

The process for adopting new textbooks is as follows:
1. Grade-Level/Content-Specific Curriculum Committees will fill out an initial request that explains the rationale/need for a new textbook
    a. these requests will go to Curriculum Coordinators
2. once the initial request is accepted, a committee will identify a minimum of 2 options, based on available research/evaluations from outside sources
3. a committee will conduct a paper screening of materials
4. the committee will pilot sections from the options
    a. a rubric will be completed on each resource
5. one of the options will be submitted for final approval to the BOE
6. the BOE will have final approval of a new textbook

# Initial Curriculum Development Process

The process for developing curriculum is as follows:

1. a K-12 Vertical Content Team will meet to determine transfer goals and draft a guiding document that includes essential questions and understandings for that discipline
2. Grade-Level/Content-Specific Content teams will meet to:
   a. prioritize standards and map them out across a curricular year
   b. unpack priority standards
   c. develop essential questions and understandings for each unit
   d. develop a performance task that assesses priority standards and transfer goals
   e. develop a the learning plan
   f. submitted to the District Curriculum Committee
3. the District Curriculum Committee will:
   a. evaluate curriculum against unit design standards, making suggestions for revision, if necessary
   b. submit the curriculum draft to the Superintendent and BOE for approval
4. approved curriculum will be reviewed regularly by the Vertical Content Teams

# Curriculum Revision Process

1. a Grade-Level/Content-Specific Curriculum Committee will draft a proposal for curriculum development or revision
2. the K-12 Vertical Content Team will approve the proposal
3. if approved, grade-level or content-specific curriculum committees will be formed to complete the development or revision work

# Stage 1:  Desired Results

Consider the goals. What are the priorities? What should students know, understand and be able to do? What are the big ideas and enduring understandings that are desired? A main focus in Stage 1 is making sure that learning goals are framed in terms of important accomplishments that reflect understanding. Stage 1 should address the following components:

1. Transfer Goals
2. Priority Standards
3. Essential Questions
4. Understandings
5. Acquisition Goals (Knowledge and Skills)

**Transfer Goals**

Purpose:

These are the long-term accomplishments that students should be able to do with knowledge and skills, on their own. They answer the questions "Why?" and "What can you do with this?" and frame content standards as long-term performance accomplishments. Transfer Goals highlight the effective uses of understanding, knowledge, and skill that we seek in the long run; i.e., what we want students to be able to do when they confront new challenges – both in and outside of school. There are a small number of overarching, long-term transfer goals in each subject area. The K-12 Content Team will develop these transfer goals.

Criteria:

Transfer goals have several distinguishing characteristics:

● They are long-term in nature; i.e., they develop and deepen over time.
● They are performance based; i.e., require application (not simply recall).
● The application occurs in new situations, not ones previously taught or encountered; i.e., the task cannot be accomplished as a result of rote learning.
● The transfer requires a thoughtful assessment of which prior learning applies here; i.e., some strategic thinking is required (not simply "plugging in" skill and facts).
● The learners must apply their learning autonomously on their own, without coaching or teacher support.
● Transfer calls for the use of habits of mind; i.e., good judgment, self regulation, persistence along with academic understanding, knowledge and skill.

**Priority Standards**

Standards should either play a starring role or a supporting role in each grade level or course. Here's how to distinguish the two:

- <u>Priority Standards</u> are "a carefully selected subset of the total list of the grade-specific and course-specific standards within each content area that students must know and be able to do by the end of each school year in order to be prepared for the standards at the next grade level or course. Priority standards represent the assured student competencies that each teacher needs to help every student learn, and demonstrate proficiency in, by the end of the current grade or course" (Ainsworth, 2013, p. xv).
- <u>Supporting Standards</u> are "those standards that support, connect to, or enhance the Priority Standards. They are taught within the context of the Priority Standards, but do not receive the same degree of instruction and assessment emphasis as do the Priority Standards. The supporting standards often become the instructional scaffolds to help students understand and attain the more rigorous and comprehensive Priority Standards" (Ainsworth, 2013, p. xv).

Prioritizing certain standards over others does not mean eliminating those standards that do not make it into the starring roles. Prioritizing the standards has nothing whatsoever to do with "lowering the bar," and everything to do with focus. It is about "less" being more. The difference is in the degree of focus given to certain standards over others.

The prioritization process relies upon effective collaboration among teacher teams. Through in-depth discussion, teachers identify those standards that meet the following specific selection criteria:

1. **Endurance** (lasting beyond one grade or course; concepts and skills needed in life). Will proficiency of this standard provide students with the knowledge and skills that will be of value beyond the present? For example, proficiency in reading informational texts and being able to write effectively for a variety of purposes will endure throughout a student's academic career and work life.
2. **Leverage** (crossover application within the content area and to other content areas; i.e., interdisciplinary connections). For example, proficiency in creating and interpreting graphs, diagrams, and charts and then being able to make accurate inferences from them will help students in math, science, social studies, language arts, and other areas. The ability to write an analytical summary or a persuasive essay will similarly help students in any academic discipline.
3. **Readiness** for the next level of learning (prerequisite concepts and skills students need to enter a new grade level or course of study). Will proficiency of this standard provide students with the essential knowledge and skills that are necessary for future success?

When considering whether to select one particular standard over another, teachers must discuss and decide which one is the more comprehensive or rigorous--not the more foundational.
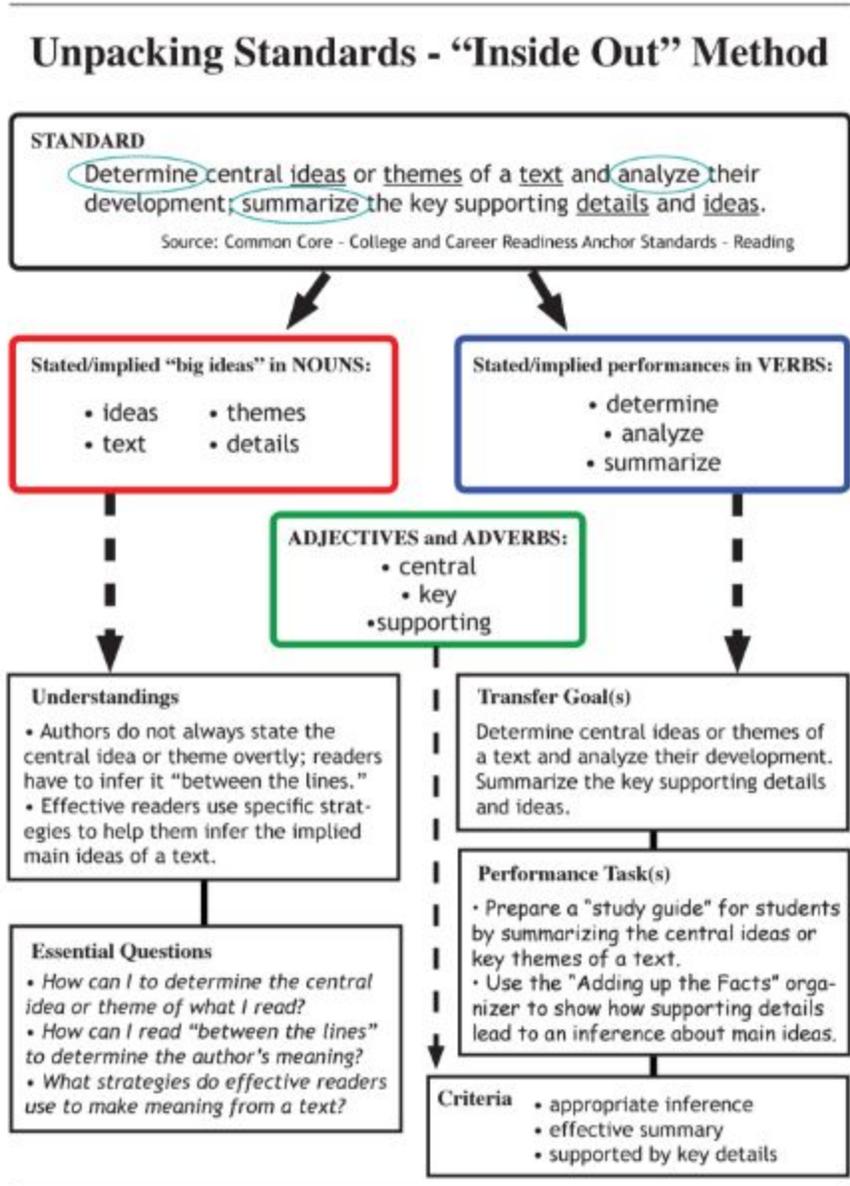
Adapted from Larry Ainsworth

**Protocol for Determining Priority Standards**
1. On your own, apply the 3 previously-mentioned criteria to each standard.
2. Put 1 dot for Endurance, 1 for Leverage, and 1 for Readiness next to those standards that you think they apply.
3. Each person reports out standards that met all three criteria.  Report choices to group (table facilitator records)
    a. Standards that are dotted by everyone will become priorities
    b. Standards that are not dotted will become supporting standards
    c. Standards that were selected by some of the group will be up for discussion
4. For the standards that are up for discussion:
    a. If you chose it as a priority, complete the priority standard worksheet as evidence
    b. If you didn't choose it as a priority, use the selection criteria to develop supporting statements and/or clarifying questions
5. We will come to an 80% consensus before deciding on priority for the standards that are up for discussion.
6. After each grade-level team identifies their initial set of priority standards, K-12 alignment will be reviewed by Curriculum Coordinators.

**Unpacking Standards**

Priority standards should be "unpacked" to identify big ideas. These big ideas should be communicated as essential questions and enduring understandings. One way to unpack standards is to use the "Inside Out" method. (see below)

# Unpacking Standards - "Inside Out" Method

**STANDARD**

Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

Source: Common Core - College and Career Readiness Anchor Standards - Reading

**Stated/implied "big ideas" in NOUNS:**

- ideas
- text
- themes
- details

**Stated/implied performances in VERBS:**

- determine
- analyze
- summarize

**ADJECTIVES and ADVERBS:**

- central
- key
- supporting

**Understandings**

- Authors do not always state the central idea or theme overtly; readers have to infer it "between the lines."
- Effective readers use specific strategies to help them infer the implied main ideas of a text.

**Essential Questions**

- How can I to determine the central idea or theme of what I read?
- How can I read "between the lines" to determine the author's meaning?
- What strategies do effective readers use to make meaning from a text?

**Transfer Goal(s)**

Determine central ideas or themes of a text and analyze their development. Summarize the key supporting details and ideas.

**Performance Task(s)**

- Prepare a "study guide" for students by summarizing the central ideas or key themes of a text.
- Use the "Adding up the Facts" organizer to show how supporting details lead to an inference about main ideas.

**Criteria**
- appropriate inference
- effective summary
- supported by key details

**Essential Questions**

<u>Purpose</u>**:**

Essential questions are identified in Stage 1 for the purpose of:

1. Provoking deep thought, lively discussion, sustained inquiry, and additional questions leading to new/deeper insight(s)
2. Asking students to consider alternatives, weigh evidence, support their ideas and rethink them
3. Supporting connection within and between content and context.

<u>Criteria</u>:

A question can be considered "essential" if it...

1. Is open-ended; it does not have a single, final correct answer. Essential questions yield inquiry and argument. There are a variety of plausible responses.
2. Requires support and justification, not just an answer. Because there are a variety of plausible responses, from different points of view, students are expected to provide reasons and evidence.
3. Is thought provoking and intellectually engaging, often leading to discussion and debate.
4. Calls for high-order thing, such as analysis, inference, evaluation, prediction. It cannot be effectively answered by recall or via Google search.
5. Points toward important, transferable ideas within and at times across disciplines.  Essential questions reflect the most historically important problems and debates of the field. Is history inevitably biased? What is a proof? Nature vs Nurture?

<u>Examples</u>:

| Essential Questions | Not Essential Questions |
|---|---|
| ● How are form and function related in biology? <br> ● How do effective writers hook their readers? <br> ● Should it be an axiom if it is not obvious? <br> ● Who "wins" and who "loses" when technology changes? <br> ● What distinguishes fluent foreigners from native speakers? | ● How many legs does a spider have? <br> ● What is foreshadowing? Can you find an example in the story? <br> ● By what axioms are we able to prove the Pythagorean theorem? <br> ● What are some French colloquialisms? <br> ● How many minutes are in a day? |

**Understandings**

<u>Purpose</u>:

Understandings are identified in Stage 1 for the purpose of:
1. framing the big ideas that give meaning and lasting importance to a particular discipline
2. providing a conceptual framework for studying the content area
3. "unpacking" areas of the curriculum where students may struggle to gain understanding or demonstrate misunderstandings and misconceptions

<u>Criteria</u>:

In order to be an understanding, an idea must...
1. Help learners make sense of otherwise discrete facts and skills. They synthesize what students should understand--not just know or do--as a result of studying a particular content area.
2. Articulate what students should "revisit" over the course of their lifetimes in relation to the content area. These should be statements that summarize the important ideas and core processes that are central to a discipline.
3. Be deliberately framed as declarative sentences that present major curriculum generalizations and recurrent ideas. Understandings have lasting value beyond the classroom and extend beyond a particular lesson or unit.

<u>Examples</u>:

| Understandings | Not Understandings |
|---|---|
| <ul><li>In a free-market economy, price is a function of supply and demand.</li><li>True friendship is revealed during difficult times, not happy times.</li><li>Statistical analysis and data display often reveal patterns that may not be obvious.</li><li>The most efficient and effective stroke mechanics in swimming involve pushing the maximum amount of water directly backward.</li><li>Heating of the Earth's surface and atmosphere by the sun drives convection within the atmosphere and oceans, producing winds and ocean currents.</li></ul> | <ul><li>That the price of long-distance phone calls has declined during the past decade.</li><li>True friendship</li><li>Mean, median and mode are measures of central tendency.</li><li>They should cup their hands when swimming freestyle.</li><li>Wind is a force of nature.</li></ul> |

**Acquisition Goals (Knowledge and Skills)**

Purpose:

Knowledge and skills are identified in Stage 1 in order to clarify what students should know, and be skilled at, as a result of the unit. Knowledge refers to having command of facts, definitions, and basic concepts (declarative knowledge). Skill refers to the ability to perform some action or process competently (procedural knowledge).

Examples: (for a unit on Nutrition)

| Knowledge and Skills |
|---|
| ● the food groups<br>● the My Plate recommendations for a balanced diet<br>● key nutrition vocabulary (e.g., protein, fat, calorie, carbohydrate, cholesterol)<br>● health problems caused by poor nutrition<br>● reading food labels for nutritional information<br>● planning a balanced meal |

# Stage 2:  Evidence

Consider evidence of student learning. How will we know if students have achieved the desired results and met the content standards that were identified in Stage 1? How will we know if students understand the big ideas and priority standards that have been identified?

**Performance Assessment**

In order to measure students' understanding, each unit will include a performance assessment, as well as other summative measures when appropriate.

Purpose

Performance Assessments are used as evidence of understanding because they show whether or not students can apply their learning to various problems, contexts and situations. This type of assessment requires students to transfer their learning, demonstrating that they can "do" the subject, as opposed to merely answering questions about it.

Development

When developing a performance assessment, curriculum development teams should consider the GPS framework:
- Goal:  Your task is ____. The goal is to ___. The problem or challenge is ___. The obstacles to overcome are ___.
- Product/Performance:  You will create a ____ in order to ____. You need to develop ____ so that ____.  Good place to start the rubric.
- Standards:  Your product must meet the following standards:____. A successful result will ____.

Criteria

In order to develop authentic, meaningful assessments, all performance tasks will be evaluated using the Performance Assessment Review Criteria. (see Appendix)

Scoring:  We're still working to develop this part of the process
- we will write performance criteria using "I can" statements for each of the priority standards
  - "Meets" is the grade-level standard; "Exceeds" is deeper on DOK

**Other Evidence**

In addition to a performance task, other possible assessments include:  conventional tests, quizzes, assignments, etc. These other summative measures can overlap with the performance task, providing a more reliable measure of student understanding.

# Stage 3:  Learning Plan

Consider the instructional activities and formative assessments. What instruction will lead to the identified results identified in Stage 1, with the appropriate evidence of understanding? What needs to be taught? How will that content be best taught, in light of the performance goals that were identified in Stage 2? What sequence of activities best suits the desired results? How will student progress be monitored?

| Proposed Learning Event(s): | Purpose (Goal[s]): (Stage 1 alignment e.g., K2, EQ1, etc. | Resources: | Formative Assessment: |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |

Any technology that is included in the learning plan (e.g., apps or websites) needs to be vetted first. Expectations for usage will be included in the learning plan.

# Appendix

**Unit Design Standards**

In order to develop a comprehensive, understanding-based curriculum, curricular units will be evaluated using the following criteria:

| **Unit Design Standards** | | | |
|---|:-:|:-:|:-:|
| KEY TO RATINGS:<br>3=Meets Standard<br>2=Partially Meets Standard<br>1=Does Not Yet Meet Standard | **3** | **2** | **1** |
| **Stage 1:  Desired Results** | | | |
| The listed transfer goals specify desired, long-term genuine accomplishments. To demonstrate them, students need to apply their learning to new situations with appropriate flexibility and fluency. | | | |
| The identified understandings reflect important, transferable ideas. To demonstrate them, students need to make inferences and connections among facts, as well as explain conclusions in their own words. | | | |
| Essential questions are open-ended and thought-provoking. They set the focus of the unit and establish learning priorities. | | | |
| The identified *knowledge* goals refer to command of facts, definitions and basic concepts (declarative knowledge). | | | |
| The identified *skills* refer to abilities for performing specific actions (procedural knowledge). | | | |
| All elements are aligned, providing focus and coherence. | | | |
| **Stage 2:  Evidence** | | | |
| The specified assessments provide valid evidence of all knowledge and skills. | | | |
| The specified assessments include authentic transfer tasks based on one or more facets of understanding. | | | |
| The specified assessments provide sufficient opportunities for students to reveal their attainment of goals. | | | |
| **Stage 3:  Learning Plan** | | | |
| The plan includes appropriate learning events and instruction that will help learners... | | | |
| ● acquire targeted knowledge and skills | | | |
| ● make meaning of important ideas | | | |

| | | | |
|---|---|---|---|
| ● transfer their knowledge to new learning | | | |
| Learning experiences are designed to engage and impact all learners. | | | |
| **Overall** | | | |
| All stages are coherent and aligned. | | | |

# UbD Teacher Feedback Form
to be completed after unit instruction

Unit: _____ Teacher: _____

Rate the following indicators on the following scale:
- 1=not at all
- 2=infrequently
- 3=somewhat
- 4=greatly

To what extent are:

|  | Rating |
|---|---|
| 1. Instruction and assessment focused on the goals established in Stage 1? | |
| 2. Essential questions revisited throughout the unit? | |
| 3. Pre-assessments used to check students' prior knowledge and potential misconceptions regarding new topics of study? | |
| 4. The activities in the learning plan designed to engage all students? | |
| 5. Students engaged in the performance assessment in Stage 2? | |
| 6. Students' understanding of the Stage 1 goals assessed through authentic tasks? | |
| 7. Evaluations of student products/performances based upon known criteria/rubrics, performance standards and models (exemplars)? | |
| 8. Appropriate instructional strategies used to help learners *transfer* their learning, *make meaning* of the big ideas and *acquire* knowledge and skills? | |
| 9. Students given regular opportunities to rethink, revise and reflect on their work based on feedback from ongoing (formative) assessments? | |
| 10. Students expected to self-assess or reflect on their work and learning and set goals for improvement? | |
| **Overall Unit Effectiveness**: Ineffective Somewhat Effective Effective (based on student performance in Stage 2-Summative Assessments) | |
| **Percent for Whom Effective**: 0-25% 26-50% 51-75% 76%-100% | |
| **Overall Unit Engagement**: A Few A Minority A Majority All | |
| **Unit Strengths:** | |
| **Unit Weaknesses:** | |

**Performance Assessments**

In order to measure understanding, performance assessments should meet the following criteria:

| Performance Assessment Review Criteria | | | |
|---|---|---|---|
| KEY TO RATINGS:<br>3=extensively<br>2=somewhat<br>1=not yet | **3** | **2** | **1** |
| The task addresses/assesses targeted standard(s) /outcome(s) and one or more of the 4 Cs--critical thinking, creativity, communication, collaboration. | | | |
| The task calls for understanding and transfer, not simply recall or a formulaic response. | | | |
| The task requires extended thinking and habits of mind, not just an answer. | | | |
| The task is set in an "authentic" context--it involves a genuine challenge, a target audience and realistic constraints. | | | |
| The task includes criteria/rubric(s) that target distinct traits of understanding and successful performance (e.g., the criteria do not simply focus on surface features of a product or performance). | | | |
| The task directions are clear for students. | | | |
| The task incorporates appropriate use of technology. | | | |
| The task is written in the GPS framework. | | | |

**BRANFORD PUBLIC SCHOOLS**
**NEW TEXTBOOK APPROVAL FORM**

**SCHOOL/SUBJECT**                                                          **DATE:**

TITLE:

AUTHOR:

PUBLISHER:

COPYRIGHT DATE:

COURSE (GRADE LEVELS):

RATIONALE:

**Teacher Technology Resources:**

**Student Technology Resources:**

How does it correlate with state frameworks? How did you determine correlation? What process and Indicators (rubric) did you use (PLEASE ATTACH RUBRIC)?
Professional Development (WHAT IS NEEDED FOR TEACHERS):

 Other textbooks considered under this review:

NUMBER OF BOOKS REQUESTED:

COST PER BOOK                TOTAL COST:

SUPPLEMENTAL SUPPLIES NEEDED (INCLUDE TECHNOLOGY – ON LINE BOOKS AND RESOURCES)

DATE APPROVED BY BOARD OF EDUCATION _____

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