

# CURRICULUM IMPROVEMENT PLAN

LaCrescent-Hokah School District  
Curriculum Steering Committee Approved May 2008  
Board Approved July 2008



## I. PHASE ONE: Identify Desired Results-Grade Level Considerations

TASKS	ACTION NEEDED	RESPONSIBILITY	TIMELINE AND RESOURCES
1. Identify and place standards that support the identified big ideas and concepts (Enduring Understandings) at each grade level/course	<ul style="list-style-type: none"> <li>A. Apply <u>big ideas</u> and <u>enduring understandings</u> at each grade level (this may result in grade level adjusting enduring understandings to match developmentally appropriate levels)</li> <li>B. Establish proficiency levels for standards and <u>benchmarks</u> (may happen simultaneously with C and D.)</li> <li>C. Group standards by big ideas/concepts. (may happen simultaneously with B and D.)</li> <li>D. Place grouped standards at grade levels/courses (may happen simultaneous with B and C)</li> <li>E. Evaluate cohesiveness of standards across the discipline (PK-12 spiral, redundancy, gaps)</li> </ul>	Teacher Team/Departments and Curriculum Committee	School Year/Summer  <u>Design Templates</u>
2. Write Essential Questions	<ul style="list-style-type: none"> <li>A. Develop <u>Essential Questions</u> that:               <ul style="list-style-type: none"> <li>a. Address student <u>misunderstandings</u></li> <li>b. Are student friendly</li> <li>c. Are age appropriate</li> <li>d. Are open ended</li> <li>e. Encourage student dialogue</li> <li>f. Encourage higher order thinking</li> </ul> </li> <li>B. Record Essential Questions in the Essential Question column on the working map</li> <li>C. Complete <u>Question Protocol</u></li> <li>D. Revise questions based upon feedback</li> </ul>	Curriculum Committee	Summer work/School year  <u>Design Templates</u>  <u>Protocols</u> <u>Question Protocol</u>  <u>Examples of Essential Questions</u>  <b>Glossary</b>

			<u>Entry question</u>
<b>3. Initiate projection map</b>	<p>A. Record <u>big ideas</u>/concepts (<u>enduring understandings</u>) in the content column in Curriculum Mapper</p> <p>B. Develop skills/knowledge using <u>Bloom's Taxonomy</u> (<u>Unpack Standards</u>) and record in skills column of Curriculum Mapper.</p> <p>C. Identify content vocabulary (e.g. period, exclamation point) and record in Curriculum Mapper in content column</p> <p>D. Identify process vocabulary (e.g. prewrite, draft, etc.) and record in Curriculum Mapper in the content column</p> <p>E. Begin <u>Self-Check Protocol</u> (see attached checklist)</p> <p>F. Using <u>Group Review Protocol</u>, share working map with teaching team and revise based on feedback</p>	Curriculum Committee and Teaching Team	<p>School Year/Summer</p> <p><u>Self-Check Protocol</u></p> <p><u>Group Review Protocol</u></p>
<b>4. Progress Summary</b>	A. Submit agenda and minutes on a monthly basis	Curriculum Committee Facilitator	Monthly



## II. PHASE TWO: Determine Acceptable Evidence and Pilot

TASKS	ACTION NEEDED	RESPONSIBILITY	TIMELINE and RESOURCES
<b>1. Evaluate alignment of big ideas (enduring understandings), standards, skills/concepts and essential questions</b>	A. Complete <a href="#">Alignment Protocol</a> B. Revise <a href="#">big ideas (enduring understandings)</a> , skills/knowledge and <a href="#">essential questions</a> based upon protocol feedback. C. Approve revisions at department level D. Submit working maps to Steering for recommendation to Board E. Submit recommended maps to board for their approval (content, skills and essential questions) Note: Content, skills and essential questions are now copied into a Master Map.	Curriculum committee Curriculum Steering     Curriculum Director	School year  Glossary <a href="#">Entry Question</a>  <a href="#">Examples of Essential Questions</a>  <a href="#">Alignment Protocol</a>
<b>2. Identify and develop Assessments (Performance Based and others)</b>	A. Review skills/knowledge located in Master map for <a href="#">Bloom's</a> level alignment B. Select skills/knowledge to be assessed C. Develop <a href="#">assessments</a> of selected skills/knowledge (using Assessment Protocol) that: <ol style="list-style-type: none"> <li>Check understanding in a variety of ways</li> <li>Align with corresponding <a href="#">Bloom's</a> levels</li> <li>Incorporate the <a href="#">assessment continuum</a> (simple to complex)</li> <li>Considers purpose (diagnostic, formative, summative)</li> <li>Include student self-assessment opportunities</li> </ol> D. Develop <a href="#">rubrics</a> /checklists for assessments E. Record assessments in the assessment column of projection map for units, course and/or skill set F. Conduct a <a href="#">Self-Check Protocol</a> G. Using the <a href="#">Assessment Protocol</a> , share projection map	Curriculum committee  Individual Teachers and Teaching Team         Teaching Team and	School Year/Summer  Assessment Continuum Graphic  <a href="#">Bloom's Taxonomy</a>  <a href="#">Self-Check Protocol</a> <a href="#">Assessment Protocol</a>  <a href="#">GRASPS Design Templates</a>  <a href="#">RAFTS Design Template</a>  <a href="#">Assessment Protocol</a>

	<p>with teaching team and department</p> <p>H. Revise assessments based upon feedback and place agreed upon summative assessments on projection map</p> <p>I. Upload assessment documents into Curriculum Mapper library (provide district access to documents)</p>	<p>Curriculum committee</p> <p>Individual Teachers</p>	Rubric Maker Software
<b>3. Material Review</b>	<p>A. Order samples</p> <p>B. Teaching teams and curriculum departments rate materials using criteria listed</p> <ol style="list-style-type: none"> <li>Mission statement alignment</li> <li>Alignment to Master maps</li> <li>Readability</li> <li>Learning Styles</li> <li>Consideration given to differentiation (SpEd, G/T, RTI, ALC)</li> <li>Multiple intelligences</li> <li>Peripheral resources</li> </ol> <p>C. Visit and survey schools</p> <p>D. Determine staff members participating in pilot</p> <p>E. Request pilot status and order core materials from no more than two vendor/publishing companies for pilot (NOTE: In some limited cases proposals for implementation instead of requesting pilot status may be considered. Phase III activities will still be required.)</p> <ol style="list-style-type: none"> <li>Submit budget projection for purchases</li> </ol>	<p>Teaching Teams, Curriculum Committee Facilitator and Curriculum Director</p> <p>Curriculum Steering</p>	<p>Spring</p> <p>Staff Development Dollars</p>
<b>4. Progress Summary</b>	A. Submit agenda and minutes on a monthly basis	Curriculum Committee Facilitator	Monthly



### III. PHASE THREE: Plan Learning Experiences and Instruction

TASKS	ACTION NEEDED	RESPONSIBILITY	TIMELINE AND RESOURCES
1. <b>Develop and implement action plan for staff development to utilize pilot materials</b>	A. Complete staff development needs assessment B. Develop <u>SMART goals</u> and measureable objectives based upon staff development needs assessment C. Implement <u>action plan</u> D. Evaluate effectiveness of staff development activities E. Modify and adjust staff development activities as needed.	Curriculum Committee Facilitator and pilot participants Curriculum Committee Facilitator and Curriculum Director	Prior Summer School Year Summer  <u>SMART Goal design template</u>  <u>Action Plan design template</u>
2. <b>Using master map and pilot materials develop activities.</b>	A. Review of master map content <u>skill/assessment/essential questions</u> using <u>Alignment Protocol</u> B. Develop activities using <u>WHERE TO</u> . Considering the following: a. Alignment with skill/concepts/assessments b. Multiple intelligences c. Best Practice d. Common vocabulary e. Differentiation (consideration given to SpEd, G/T, RTI, ALC) f. Learning Styles g. Technology and media integration (including software used for remediation, enrichment and direct instruction) h. Reading in the content area and writing across curricula i. Develop integrated and/or interdisciplinary activities including collaboration with other content area teachers. C. Share activity development with pilot participants and	Pilot Teacher(s) Curriculum Committee	Prior Summer School Year Summer  <u>Examples of Essential Questions</u>  <u>Alignment Protocol</u>  <u>WHERE TO design template</u>

	revise based upon feedback. D. Share activity development with curriculum committee and revise based upon feedback	Teaching Team	
<b>3. Monitor pilot quarterly to determine continuation</b>	A. Share pilot observations with teaching team and request feedback on continuation B. Share pilot observations with curriculum committee and request feedback on continuation C. Continue pilot move on to #4 OR D. Discontinue pilot return to Phase II.4 or continue with second pilot proposal	Pilot teacher(s), teaching teams and curriculum committee	School Year
<b>4. Update projection map</b>	A. Upload activities to the Curriculum Mapper Library and attached to projection map B. Add resources to projection map C. Review and update essential questions D. Conduct <u>self-check protocol</u>	Pilot teacher(s)	School year <u>Self-check protocol</u>
<b>5. Obtain department approval for material purchase</b>	A. Submit department approval form for material purchase to Curriculum Director B. Submit budget outlining total costs including anticipated staff development, software, differentiation (e.g. RTI, G/T, SPED, ALC) C. Curriculum Director and Curriculum Committee Facilitator review form and budget projections and determine approval path D. Submit purchase order requisition (materials and staff development) to Curriculum Steering committee for recommendation to Board E. Request Board approval of material purchase	Curriculum Committee Facilitator and Curriculum Director	March 1 <sup>st</sup>
<b>6. Purchase core materials</b>	A. Inventory materials (ISBN, title, author, edition and year of publication) B. Submit inventory electronically to curriculum director	Pilot teacher(s)	
<b>7. Develop staff development action plan to utilize new materials</b>	A. Complete Staff Development Needs Assessment B. Develop <u>SMART goals</u> and measurable objective based upon staff development needs assessment C. Create action plan based on staff develop needs	Pilot teacher(s), Curriculum Facilitator, Curriculum Committee	<u>SMART goal design template</u>
<b>8. Complete protocols</b>	A. Complete <u>initial read-through protocol</u> for each map B. Adjust monthly diary maps based upon protocol feedback	Pilot teacher(s),	<u>Initial Read Through Protocol</u>

	C. Complete <u>group review protocol</u> <ol style="list-style-type: none"> <li>Gaps</li> <li>Repetition</li> <li>Varied Assessments (performance, test/quiz, observation)</li> <li>Distribution of skills/concepts on Bloom's Taxonomy Wheel</li> </ol> D. Facilitator and curriculum director meet to discuss changes needed on master map	Curriculum Facilitator, Curriculum Committee  Curriculum Director	<u>Group review protocol</u>
9. <b>Progress Summary</b>	A. Submit agenda and minutes on a monthly basis	Curriculum Committee Facilitator	Monthly





#### IV. PHASE FOUR: Implement-These tasks are not linear.

TASKS	ACTION NEEDED	RESPONSIBILITY	TIMELINE
1. Implement staff development action plan from Phase III.	A. Evaluate effectiveness of staff development activities B. Modify and adjust staff development activities as needed	Curriculum Committee Curriculum Director	
2. <b>Implement Units (Diary mapping)</b>	A. Copy master map into current year B. Adjust content, enduring understanding, skills, assessments, essential questions, resources on working map based upon what you actually do (enacted curriculum). C. Attach new documents (activities, assessments, rubrics, etc.) to curriculum mapper library as created. D. Conduct <a href="#">Self-Check Protocol</a> and <a href="#">Initial Read Through Protocol</a> on a monthly basis with teaching team or curriculum committee E. Conduct a <a href="#">Group Review Protocol</a> after 5-6 months of maps are completed F. Request adjustment of master map at committee level based upon tasks 1-4 G. Facilitator and curriculum director meet to discuss changes needed on master map H. Identify implementation issues as they arise; solve if possible or consider as a <a href="#">SMART goal</a> for next phase	Individual Teachers    Teaching Team  Curriculum committee  Curriculum Committee  Curriculum Committee Facilitator and Curriculum Director	Summer/Fall  <a href="#">Self-Check Protocol</a>  <a href="#">Initial Read Through Protocol</a>  <a href="#">Group Review Protocol</a>  <a href="#">SMART Goal design template</a>
3. <b>Evaluate and Revise assessments based upon student work (performance based and others)</b>	A. Collect and review student work/assessments at team and/or committee level B. Re-evaluate and revise assessments of selected skills/knowledge using <a href="#">Assessment Protocol</a> with teaching team and department C. Revise rubrics and checklists for skills assessed. D. Record assessments in the assessment column of working map for units, course and/or skill set E. Conduct a <a href="#">Self-Check Protocol</a> F. Upload assessment documents into Curriculum Mapper library (provide district access to documents)	Curriculum committee and/or teaching team       Individual Teacher Curriculum committee and/or teaching team	Assessment Continuum Graphic  <a href="#">Assessment Protocol</a>  <a href="#">Self-Check Protocol</a>

		Individual Teacher	
<b>4. Develop a SMART goal for Phase V.</b>	<p>A. Choose focused target area(s) based on work completed in Phase IV task 2, 3 or 4 for next Phase (e.g. differentiated instruction, technology/media integration, multiple intelligences, material gaps, assessment, standards review, essential questions <b>etc.</b>)</p> <p>B. Submit <u>SMART goal(s)</u> to curriculum director and steering committee</p>	Curriculum committee	<p>Due May 1 to curriculum director</p> <p><u>SMART Goal design template</u></p>
<b>5. Progress Summary</b>	A. Submit agenda and minutes on a monthly basis	Curriculum Committee Facilitator	Monthly



## V. PHASE FIVE: Assess, Evaluate and Improve (Part 1)

TASKS	ACTION NEEDED	RESPONSIBILITY	TIMELINE
<b>1. Develop and Implement Action Plan</b>	A. Create action plan based upon <u>SMART goal(s)</u> developed previous year (action plan should include review of student work and assessments found in data warehouse) B. Submit <u>action plan</u> to curriculum director (for curriculum steering review)	Curriculum Committee	October 1  <u>Action Plan design template</u>
<b>2. Implement Units (Diary Mapping)</b>	A. Copy master map into current year B. Adjust content, <u>enduring understanding</u> , skills, assessments, <u>essential questions</u> , resources on working map based upon what you actually do (enacted curriculum). C. Attach new documents (activities, assessments, rubrics, etc.) to curriculum mapper library as created. D. Conduct <u>self-check protocol</u> E. Conduct a <u>Initial Read-through protocol</u> with teaching team or curriculum committee F. Identify implementation issues as they arise; solve if possible or consider as a <u>SMART goal</u> for next phase	Individual Teacher    Teaching Team/Department  Curriculum Committee	School Year Summer  <u>Self-check Protocol</u>  <u>Initial Read-Through Protocol</u>  <u>SMART Goal design Protocol</u>
<b>3. Complete Protocols</b>	A. Complete <u>group review protocol</u> after 5-6 monthly maps have been created B. Facilitator and curriculum director meet to discuss changes needed on master map	Curriculum Committee, Curriculum Committee Facilitator and Curriculum Director	<u>Group Review Protocol</u>
<b>4. Develop a SMART goal for Phase VI.</b>	A. Choose focused target area(s) based on work completed in Phase IV task 2, 3 or 4 for next Phase (e.g. differentiated instruction, technology/media integration, multiple intelligences, material gaps, assessment, standards review, essential questions <b>etc.</b> ) B. Submit <u>SMART goal(s)</u> to curriculum director and steering committee	Curriculum committee	Due May 1 to curriculum director  <u>SMART Goal Design Template</u>
<b>5. Progress Summary</b>	A. Submit agenda and minutes on a monthly basis	Curriculum Committee Facilitator	Monthly



## VI. PHASE SIX: Assess, Evaluate and Improve (Part 2)

TASKS	ACTION NEEDED	RESPONSIBILITY	TIMELINE
<b>1. Develop and Implement Action Plan</b>	A. Create <u>action plan</u> based upon <u>SMART goal(s)</u> developed previous year (action plan should include review of student work and assessments found in data warehouse) B. Submit action plan to curriculum director (for curriculum steering review)	Curriculum Committee	October 1 <u>Action Plan Design Template</u>
<b>2. Implement Units (Diary Mapping)</b>	A. Copy master map into current year B. Adjust content, <u>enduring understanding</u> , skills, assessments, <u>essential questions</u> , resources on diary map based upon what you actually do (enacted curriculum). C. Attach new documents (activities, assessments, rubrics, etc.) to curriculum mapper library as created. D. Conduct <u>self-check protocol</u> (see attached) E. Conduct a <u>Initial Read Through Protocol</u> with teaching team or curriculum committee F. Identify implementation issues as they arise; solve if possible or consider as a <u>SMART goal</u> for next phase	Individual Teacher     Teaching Team/Department  Curriculum Committee	School Year Summer  <u>Self-Check Protocol</u>  <u>Initial Read Through protocol</u>  <u>SMART Goal Design Template</u>  <u>Examples of Essential Questions</u>
<b>3. Complete Protocols</b>	A. Complete <u>group review protocol</u> once you have at least 5-6 maps. B. Facilitator and curriculum director meet to discuss changes needed on master map	Curriculum Committee, Curriculum Committee Facilitator and Curriculum Director	Monthly  <u>Group Review Protocol</u>
<b>4. Progress Summary</b>	A. Submit agenda and minutes on a monthly basis	Curriculum Committee Facilitator	Monthly



## VII. PHASE SEVEN: Prepare for New Cycle-Department level considerations

TASKS	ACTION NEEDED	RESPONSIBILITY	TIMELINE
1. <b>Examine Current Program, Trends and Issues</b>	A. Review/Develop mission statement B. Begin <i>Considerations for Planning</i> to identify <u>big ideas</u> and concepts ( <u>enduring understandings</u> ) <ol style="list-style-type: none"> <li>Examine Best Practices and current research</li> <li>Consult professional organizations</li> <li>Examine teacher beliefs and experiences</li> <li>Examine student needs and interests</li> <li>Examine Community and Parent input</li> <li>Review national, state and local standards and benchmarks</li> <li>Review NWEA, AIMS Web, MCA results, Descartes' Learning Continuum, and Minnesota test specifications</li> <li>Review curricular sequencing and scaffolding by examining Phase VI maps</li> <li>Identify potential connections to other content or skill areas</li> <li>Survey students' needs/interests and teachers' beliefs/experiences</li> </ol> C. Select big ideas/concepts (enduring understandings) to serve as the foundation of the curriculum-Consider 40-40-40	Curriculum Committee and Curriculum Director	School Year  MCREL ASCD National Associations  <u>Design Templates</u>  <u>Considerations for Planning templates</u>
		Teaching Team	40-40-40 video clip
2. <b>Implement Units (Diary Mapping)</b>	A. Copy master map into current year B. Adjust content, enduring understanding, skills, assessments, <u>essential questions</u> , resources on working map based upon what you actually do (enacted curriculum). C. Attach new documents (activities, assessments, rubrics, etc.) to curriculum mapper library as created. D. Conduct <u>self-check protocol</u> E. Conduct a <u>Initial Read-Through protocol</u> with teaching team or	Individual Teacher         Teaching Team/Department	School Year Summer  <u>Self Check Protocol</u>  <u>Initial Read-through Protocol</u>

	<p>curriculum committee</p> <p>F. Identify implementation issues as they arise; solve if possible or consider as a <u>SMART goal</u> for next phase</p>	Curriculum Committee	<p><u>SMART Goal design template</u></p> <p><u>Examples of Essential Questions</u></p>
<b>3. Complete Protocols</b>	<p>A. Complete <u>group review protocol</u> once you have at least 5-6 months worth of maps</p> <p>B. Facilitator and curriculum director meet to discuss changes needed on master map</p>	Curriculum Committee, Curriculum Committee Facilitator and Curriculum Director	<u>Group review protocol</u>
<b>4. Progress Summary</b>	A. Submit agenda and minutes on a monthly basis	Curriculum Committee Facilitator	Monthly

# Appendix A

## Design Templates

## Considerations for Planning Design Template

### Filters for determining Big Ideas/Enduring Understandings, Content and Skills by David Bernard

Use the categories listed below to facilitate your decision-making as you begin your instructional plan. You may represent this work by creating a graphical representation (mind or other thinking map) or documenting your exploration in a more linear manner (written and word processed). Several possible planning templates follow.

First carefully consider:

- ☐ State standards and benchmarks
- ☐ District standards/outcomes and or benchmarks
- ☐ Obtain community input
- ☐ Review assessment data (test specs, learning continuum, NWEA, MCA)
- ☐ Professional standards and benchmarks (McREL)
- ☐ Research and best practices in your content area
- ☐ Your own beliefs and experiences
- ☐ Your students' needs and interests
- ☐ Curricular sequencing and scaffolding

From there, communicate the following: (no particular order)

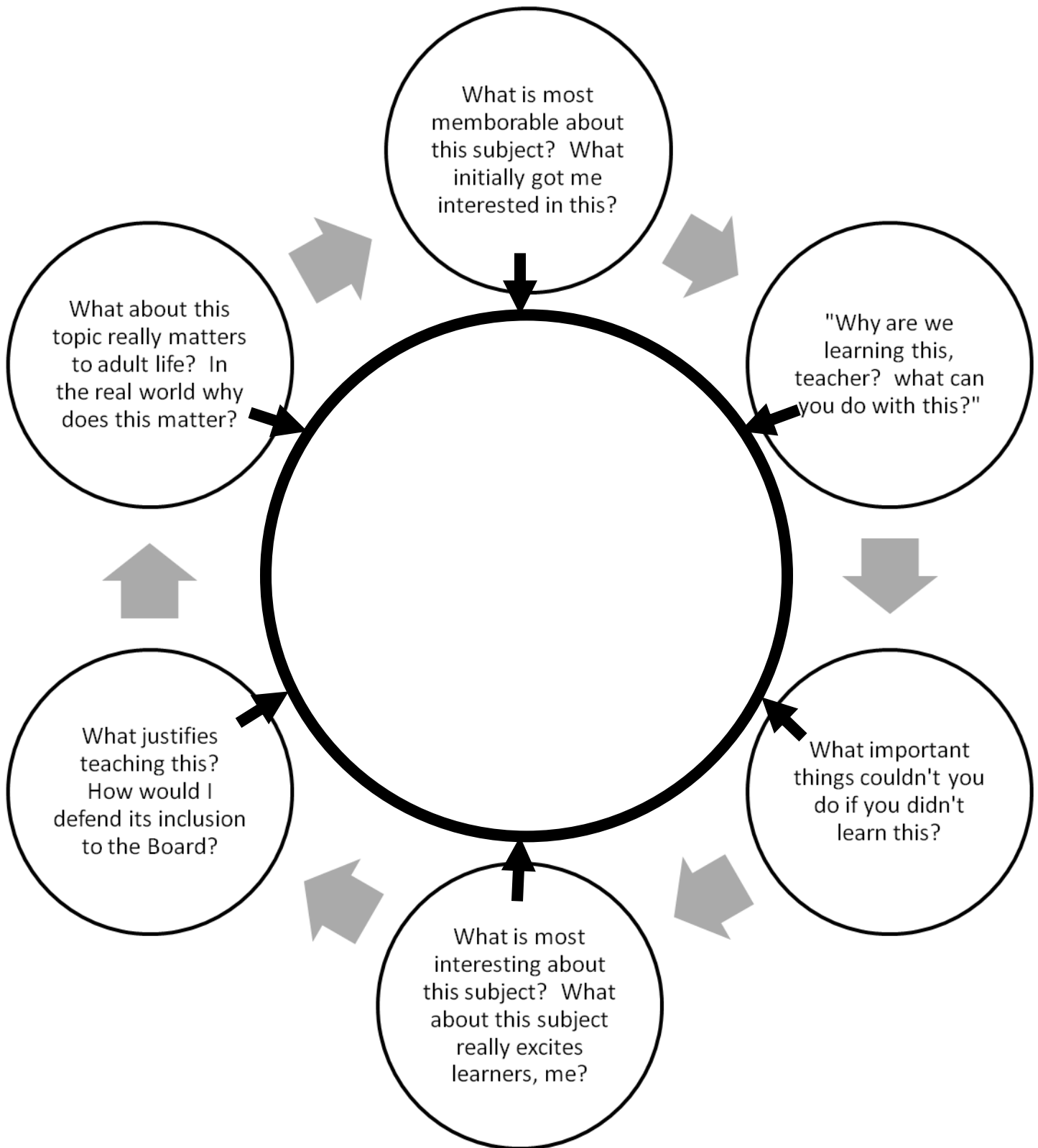
- ☐ The big ideas/essential questions/key concepts/enduring understandings that you want your students to understand
- ☐ The knowledge (content) and skills (processes) your students need to have to demonstrate understanding

Finally, check that you have...

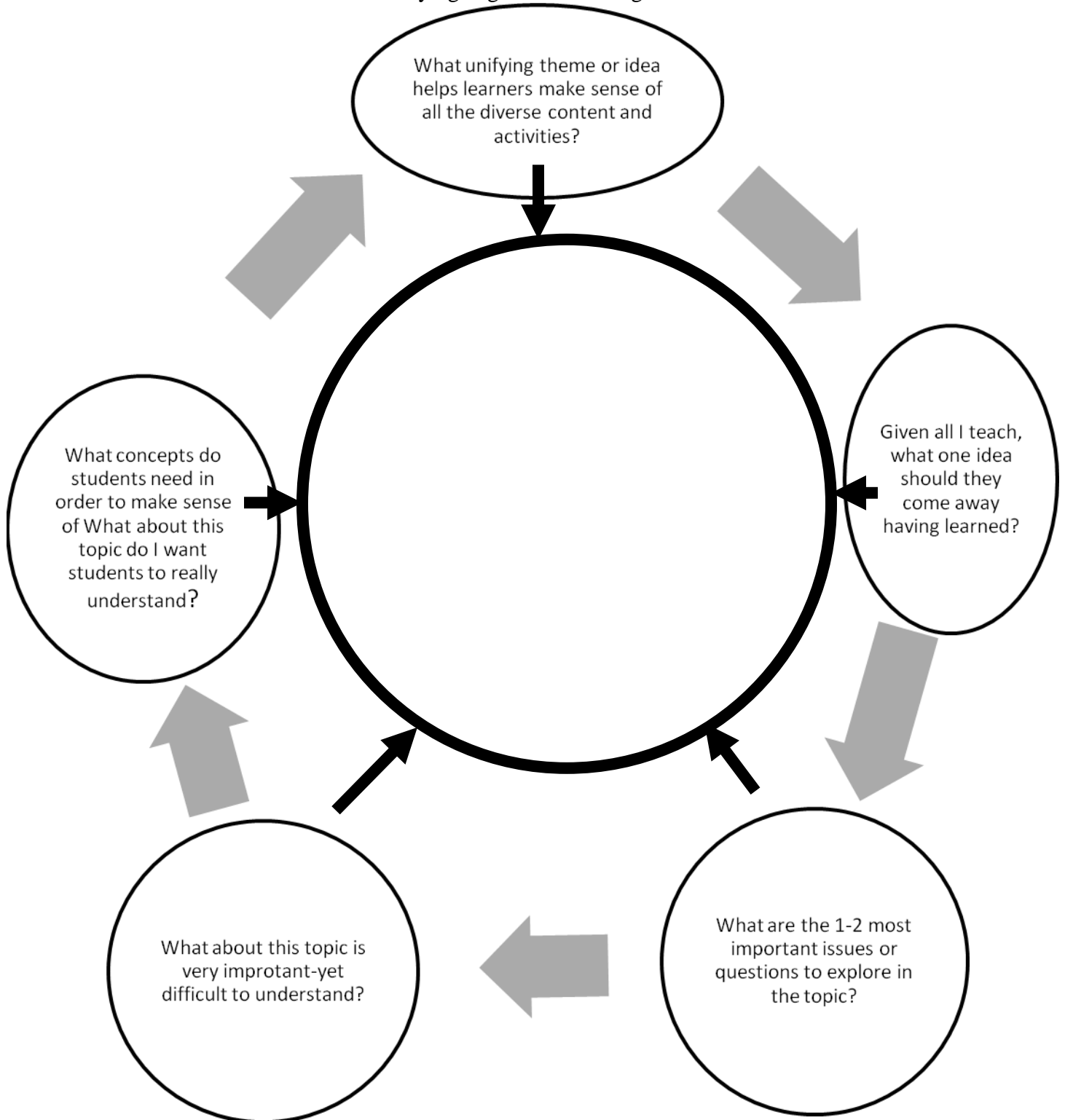
- ☐ Aligned your standards and benchmarks with the big ideas, essential questions, key concepts, and enduring understandings
- ☐ Align your big ideas, essential questions key concepts, and enduring understandings to your beliefs and experiences
- ☐ Connect your big ideas, essential questions key concepts, and enduring understandings to your students' needs and interests
- ☐ Made connections between research and best practice and your big ideas, essential questions key concepts, and enduring understandings.
- ☐ Created annotations for the articles you researched



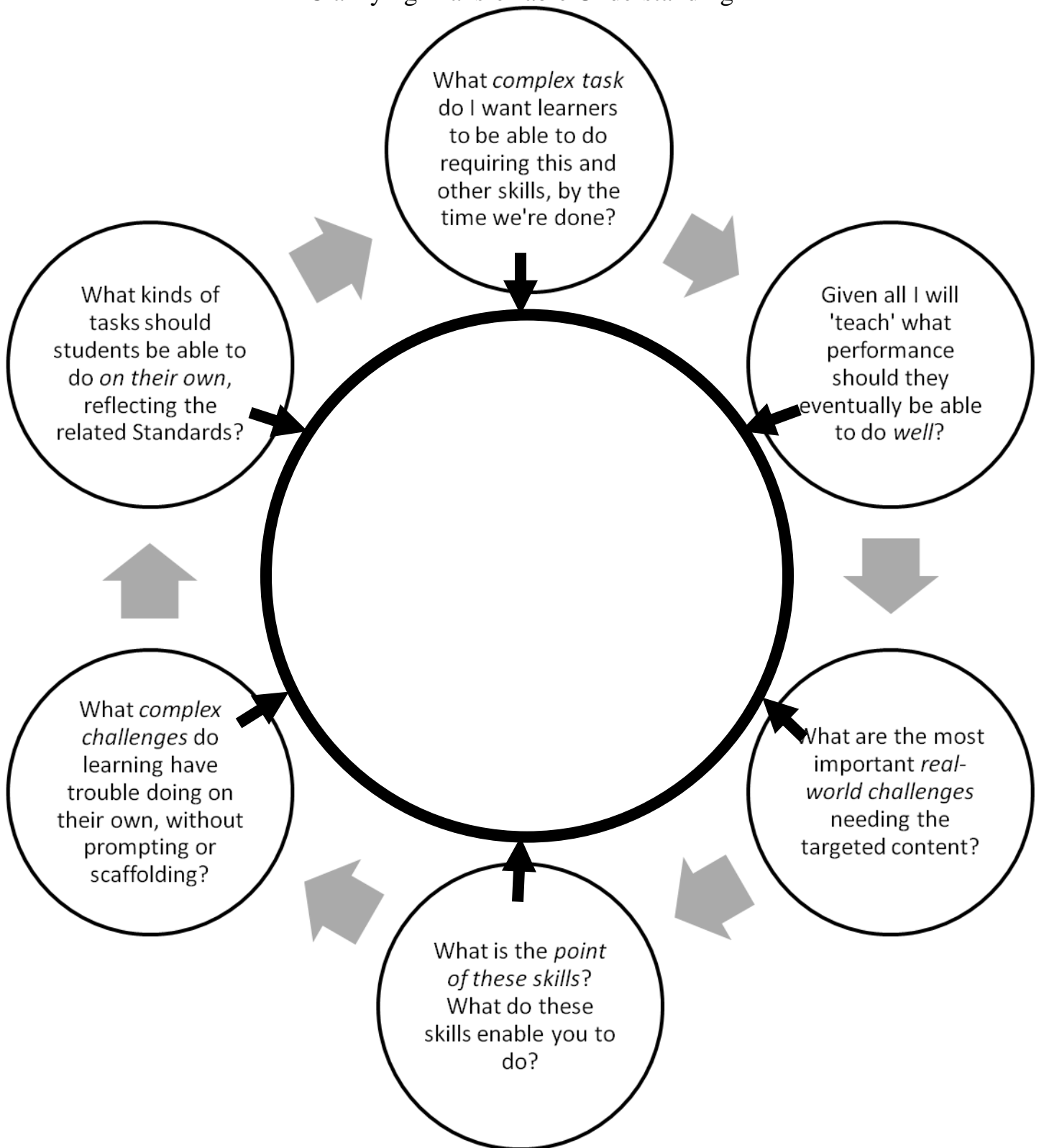
My Unit: What's the point, the value?



## Clarifying Big Ideas: 1-2 Big Ideas

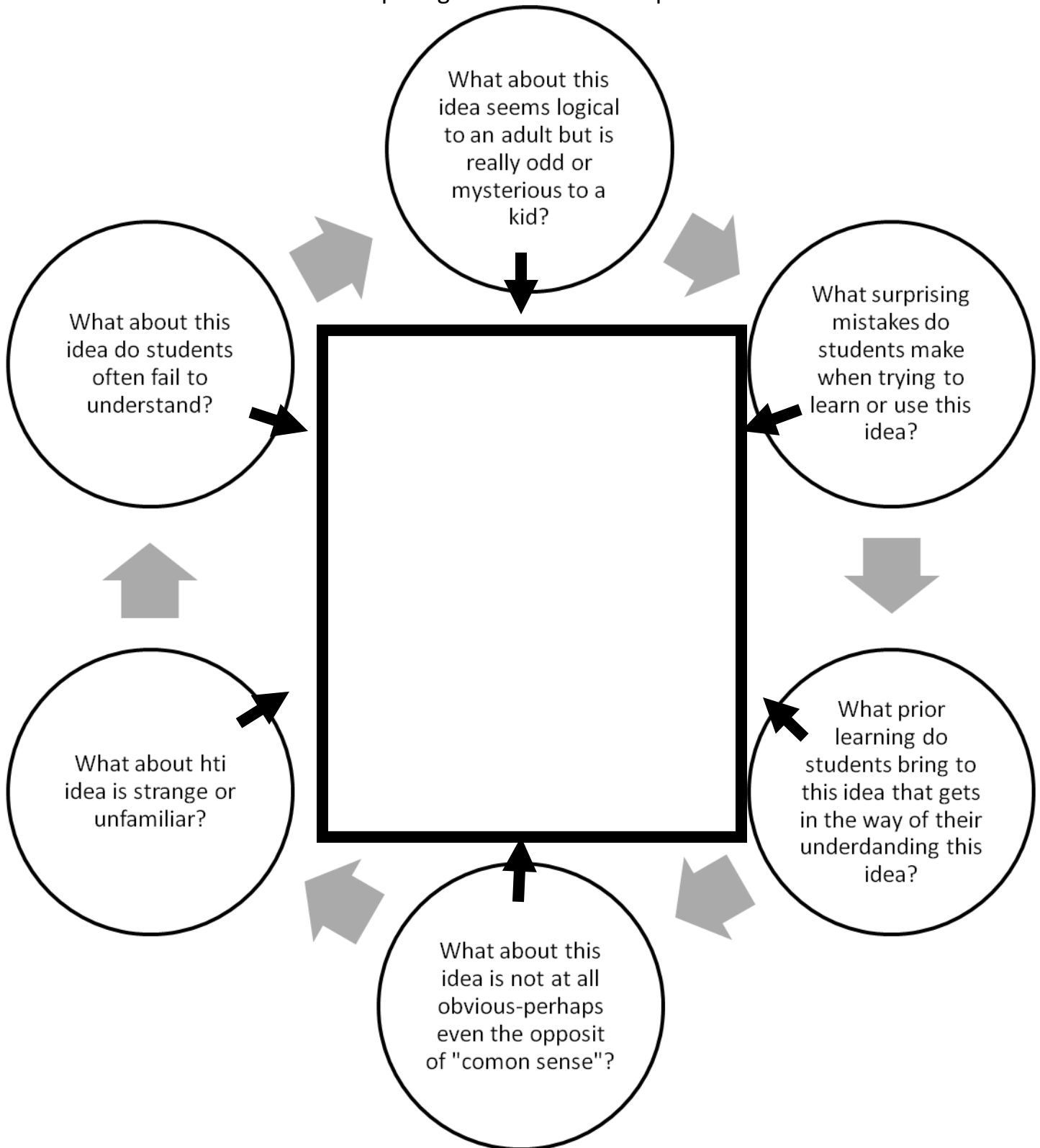


## Clarifying Transferrable Understanding



The answers represent possible transfer goals for focusing teaching and learning of all skill and knowledge.

Misunderstandings  
Anticipating Possible Misconceptions



Revise your Understandings and Essential Questions, as needed, based on this protocol.

### Considerations for Planning Design Template

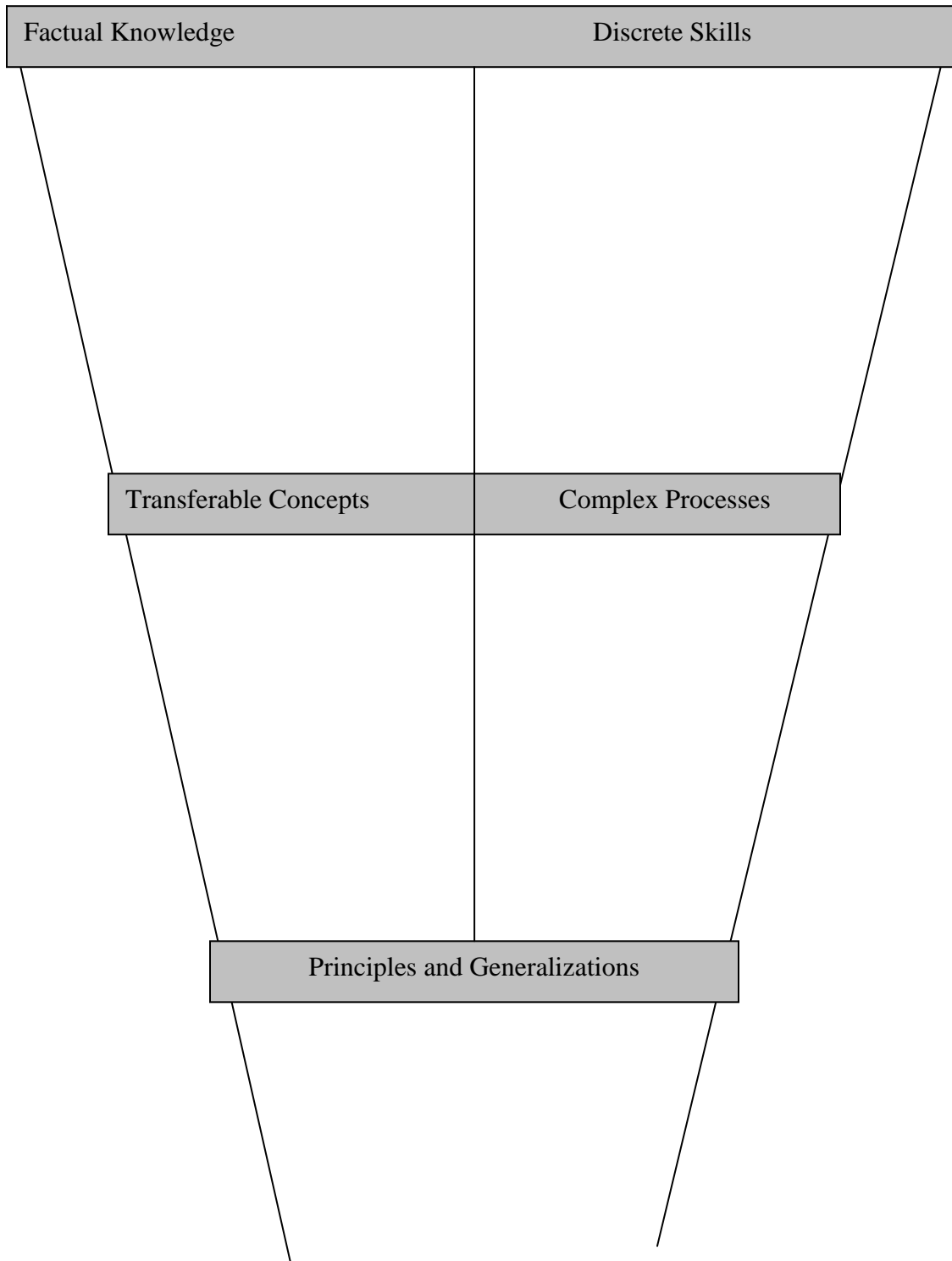
Filters for determining Big Ideas/Enduring Understandings, Content and Skills by David Bernard (Version 1)

District Outcomes & Community Expectations	State, National, Professional Standards and benchmarks	Teacher Beliefs & Experiences	Student Needs and Interests	Research and Best Practice	Other Considerations: Assessment data, Test Specs, Learning Continuum, Curricular Sequencing & Scaffolding
<div style="text-align: center; margin-bottom: 10px;">Enduring Understandings, Big Ideas or Concepts, and/or Essential Questions</div>					
Knowledge (Content)			Skills (Process)		

Considerations for Planning Design Template  
(Version2)

Phase I: Identify Desired Results and Phase VII: Prepare for New Cycle  
Structure of Knowledge

**Topic:**



## Considerations for Planning Design Template

### Version 3

Phase I: Identify Desired Results (I.3.B) and Phase VII: Prepare for New Cycle

Grade Level:

<b>Standard:</b>	
Stated or implied BIG IDEAS in the NOUNS and ADJECTIVES:	Stated or implied real-world performances in the VERBS:
<b>Understandings:</b> (transferable big ideas that give the content meaning and connect the facts and skills) Students will understand that...	<b>Essential Question(s)</b> (used to guide student inquiry and focus instruction for uncovering the important ideas of the content; broad, open-ended; arguable) :
Performance Task Ideas for Benchmarks:	

Considerations for Planning Design Template Phase I: Identify Desired Results (I.3.B) (Version 4)

<b>Standard:</b>			
G			
↓			
To meet the standards, students will need to understand that			
U			
↓			
To understand, students will need to consider such questions as			
Q			
↓			
To understand, students will need to			
know	K	be able to...	S
<b>BENCHMARKS</b>			



Phase I: Identify Desired Results (I.3.B) and Phase VII: Prepare for New Cycle  
(Version 5)

Grade Level:

<b>Standard:</b> Benchmark: Performance level:	
Stated or implied BIG IDEAS in the NOUNS and ADJECTIVES:	Stated or implied real-world performances in the VERBS:
<b>Understandings:</b> (transferable big ideas that give the content meaning and connect the facts and skills) Students will understand that...	<b>Essential Question(s)</b> (used to guide student inquiry and focus instruction for uncovering the important ideas of the content; broad, open-ended; arguable) :
To understand students will Know/Do:	

## Phase II: Determining Acceptable Evidence Planning Sheet

Unit Name: \_\_\_\_\_

Check possible assessments and provide a brief title for assessment.

☐ ☐ ☐ ☐ Performance Task (T) \_\_\_\_\_

☐ ☐ ☐ ☐ Quizzes (OE) \_\_\_\_\_

☐ ☐ ☐ ☐ Tests \_\_\_\_\_

☐ ☐ ☐ ☐ Student Work Samples \_\_\_\_\_

☐ ☐ ☐ ☐ Observation \_\_\_\_\_

☐ ☐ ☐ ☐ Other \_\_\_\_\_

Goal: \_\_\_\_\_

Role: \_\_\_\_\_

Audience: \_\_\_\_\_

Situation: \_\_\_\_\_

Product, Performance and Purpose: \_\_\_\_\_

Standards and Criteria for Success: \_\_\_\_\_

## **Phase II: Determining Acceptable Evidence**

### **GRASPS Task Design Prompts**

You do not need to fill out each bulleted item.

**Goal:**

- ☐ Your task is
- ☐ The goal is to
- ☐ The problem or challenge is
- ☐ The obstacles to over come are

**Role:**

- ☐ You are
- ☐ You have been asked to
- ☐ Your job is

**Audience:**

- ☐ Your clients are
- ☐ The target audience is
- ☐ You need to convince

**Situation:**

- ☐ The context you find yourself in is
- ☐ The challenge involves dealing with

**Product, Performance, and Purpose**

- ☐ You will create a \_\_\_\_\_ in order to
- ☐ You need to develop \_\_\_\_\_ so that

**Standards and Criteria for Success**

- ☐ Your performance needs to
- ☐ Your work will be judged by
- ☐ Your product must meet the following standards

Phase II: Determining Acceptable Evidence  
RAFTS Design Template  
Version 1

**NARRATIVE EXAMPLE:**

Subject Area: Science

Role: Endangered flying squirrel

Audience: Construction company president

Format: Narrative letter

Topic/Task: The story of your family and its life in the forest

Strong Verb: relate

Imagine you are an endangered flying squirrel. Write a narrative letter to a construction company president relating the story of your family and its life in the forest in hopes that it will change his mind about building a shopping center on the site.

**EXPOSITORY EXAMPLE:**

Subject Area: Science

Role: Journalist

Audience: Readers of an animal magazine

Format: Expository research notes

Topic/Task: Why (animal type) are an important species to have in the world and what their contribution is to sustaining the environment

Strong Verb: detail

You are a journalist responsible for gathering background information for an article for the readers of a magazine called *Animals and Their Homes: Saving Habitats for Endangered Species*. Create research notes that detail why they are an important species to have in the world and what their contribution is to sustaining the environment.

**Subject Area:**

**Role:**

**Audience:**

**Format:**

**Topic/Task:**

**Strong Verb:**

RAFTS Planning Sheet  
Version 2

Subject Area: \_\_\_\_\_

Role: \_\_\_\_\_

Audience: \_\_\_\_\_

Format: \_\_\_\_\_

Topic/Task: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Strong Verb: \_\_\_\_\_

Trait(s) you'd like to judge the work successful by—remember to provide the rubric to the students: \_\_\_\_\_

Completed RAFTS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

W.H.E.R.E.T.O.  
Considerations for the Learning Plan and Activity Development

The acronym WHERETO summarizes the key elements that should be found in a learning plan, given the desired results and assessments drafted in Phases I-III.

**W**

**Where** are we going? **Why?** **What** is expected?

**H**

How will we **hook** and **hold** student interest?

**E**

How will we **equip** students for expected performances?

**R**

How will we help students **rethink** and **revise**?

**E**

How will students self-**evaluate** and reflect on their learning?

**T**

How will we **tailor** learning to varied needs, interests, styles?

**O**

How will we **organize** and sequence the learning?

### SMART Goal Design Template

SMART Goal	SMART Goal Criteria ( <i>specific/strategic, measurable, attainable, relevant and time bound</i> )
	<b>Specific and Strategic</b> (numbers, grade/school, tool used, other bldg efforts, long/short term awareness)
	<b>Measurable</b> (How much, How many, How will I know it is accomplished)
	<b>Attainable</b> (method for determining short-term goals, goal reachable in time frame, consider 'art/'logic' of implementation, numbers over multiple grades, stakeholder ownership)
	<b>Relevant and Results-based</b> (appropriate tool and data, other building/district goals)
	<b>Time Bound</b> (measureable, realistic, internal accountability, sense of urgency)

## Phase \_\_\_\_\_ Action Plan for \_\_\_\_\_

**Goal 1:**

**Measurable Objectives:**

Strategy / Action	Person Responsible	Measurement	Resources	Due Date	Timeline											
					Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul

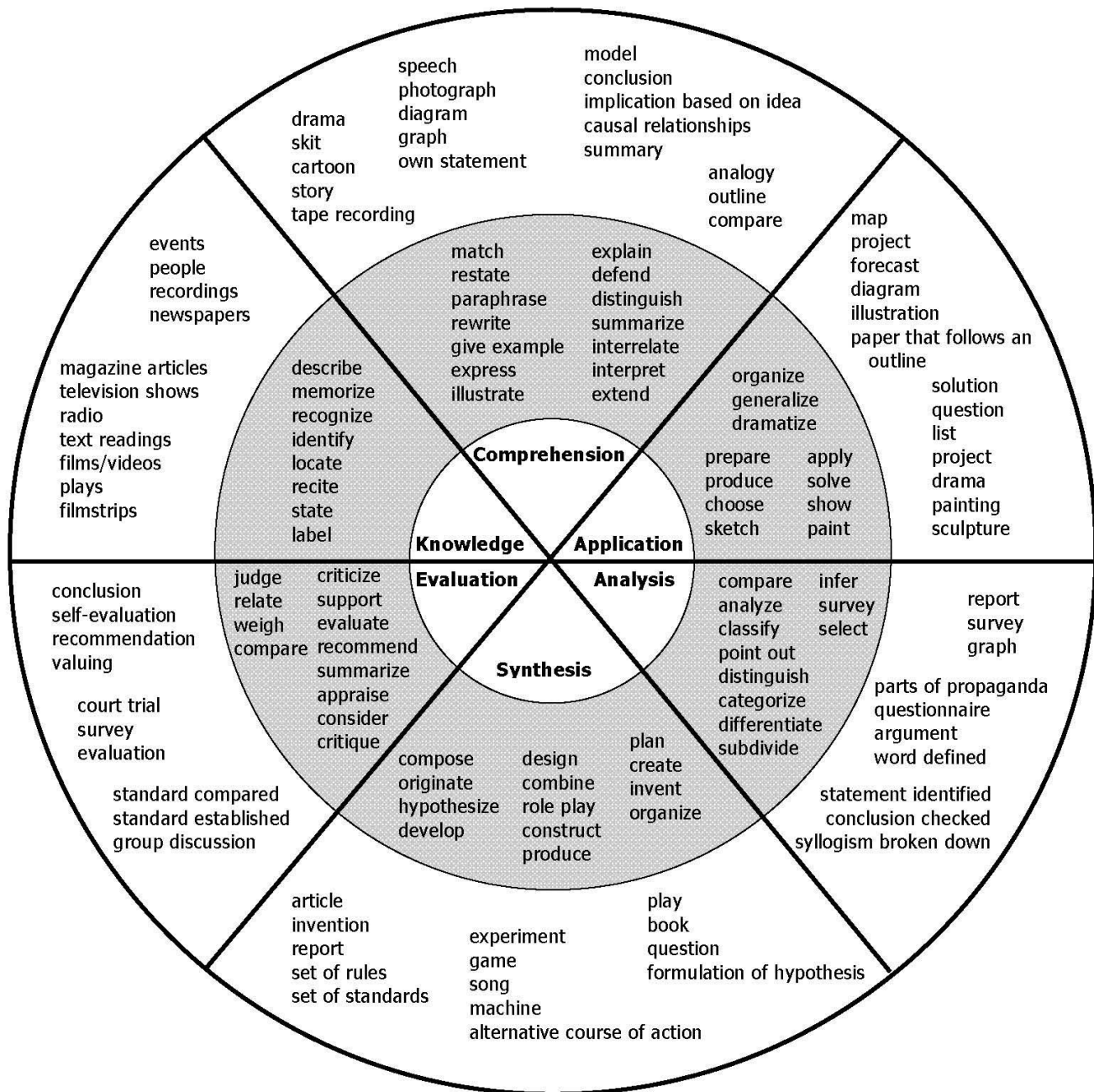


Strategy / Action	Person Responsible	Measurement	Resources	Due Date	Timeline											
					Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul

## Appendix B

### Bloom's Taxonomy

# Bloom's Verbs and Matching Assessment Types



Remember that your verbs need to be seeable/measurable.  
No knew/knows, understood/understands, used/uses, or demonstrated/demonstrates.

Critical Thinking Action Verbs (from SU Consulting resources)					
Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Choose Define Find Label List Match Name Omit Recall Relate Select Show Spell Tell	Classify Compare Contrast Demonstrate Explain Extend Illustrate Infer Interpret Outline Relate Rephrase Show Summarize Translate	Apply Build Choose Construct Develop Experiment with Identify Interview Make use of Model Organize Plan Select Solve Utilize	Analyze Categorize Classify Compare Contrast Distinguish Divide Examine Inspect Simplify Survey Test for	Adapt Build Change Choose Combine Compile Compose Construct Create Delete Design Develop Discuss Elaborate Estimate Formulate Imagine Improve Invent Make up Maximize Minimize Modify Plan Predict Propose Solve Test Theorize	Appraise Assess Award Choose Compare Conclude Criticize Decide Deduct Defend Determine Disprove Dispute Estimate Evaluate Explain Interpret Judge Justify Measure Prioritize Prove Rate Rule on Select

## Appendix C:

### Protocols

## Curriculum Mapper Self-check Protocol

This protocol is used when a teacher has finished a map, and is completed by the map writer. Its purpose is to ensure that formatting and word processing errors are corrected before colleagues work with the map during the first *Read-Through*.

- ☐ Map is labeled with the correct course name, grade level, and year.
- ☐ Text in each column has been spell checked.
- ☐ Corresponding text is aligned across columns and white space is used to increase readability.
- .....
- ☐ Content is formatted using a capital letter, with bulleted key points, (if any).
- ☐ Content is listed as clear, concise, descriptive noun.
- ☐ Content does not reference resources (i.e. chapter numbers, etc.).
- ☐ Timeline of content, if different than the month suggests, is defined in parentheses below content title(s).
- .....
- ☐ Skills are formatted using the capital letter from corresponding content and a number, (i.e. A1., A2., B1.).
- ☐ Skills are written starting with a present tense verb but NOT “use, know, demonstrate, understand”.
- ☐ Skills describe the observable, measurable action you are expecting from students.
- ☐ Standards, if any, are attached at the end of the applicable skill and should show only one icon per skill. (You may check as many standards as you need before inserting as one icon.)
- .....
- ☐ Assessments are formatted using the letter and number of any and all skills assessed (i.e. A1., A1-4. or A2,B3,4.).
- ☐ Assessments are written as defined nouns.
- ☐ Documents, if any, are attached at the end of the assessment descriptor.

## Curriculum Mapping Initial Individual Map Read-Through Protocol

This protocol is used when a teacher is reviewing a particular map by itself not in relationship to other maps. Complete this protocol for each map that is written. These questions can also be used to guide small group conversations as teachers are beginning to map (after 1 or 2 months of diary mapping).

1. Which map did you review (i.e. Language Arts, grade 6) Content Area\_\_\_\_\_
- Grade Level:\_\_\_\_\_

2. Are the content, skills and assessments clearly aligned?\_\_\_\_\_

Comments:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Are the skills precise and described using action verbs? \_\_\_\_\_

Comments:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Are the assessments tangible products clearly described and varied? \_\_\_\_\_

Comments:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. Is the map easy to read?\_\_\_\_\_ Is the language clear?\_\_\_\_\_ Has the format been followed? \_\_\_\_\_

Comments:\_\_\_\_\_

\_\_\_\_\_

6. What did you learn from reading this map?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. What questions do you have about this map? -

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. What suggestions do you have for making this map clearer and/or easier to read?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Group Review Protocol**  
**(from S.U. Consulting)**  
**(Version 1)**

This protocol is used when teachers are reviewing a group of maps within or across a content area.  
It is necessary to have a group of maps to view both horizontal and vertical relationships.

1. Which groups of maps did you review (i.e. Language Arts, grades 6, 7, 8)
  - a. Content Area: \_\_\_\_\_
  - b. Grade Levels: \_\_\_\_\_
2. What new insights did you discover about the curriculum as a result of looking at these maps?
3. What gaps based on your knowledge of the curriculum did you discover as a result of reviewing these maps?
4. What unnecessary repetitions did you discover?
5. What questions and/or concerns do you have for this curricular area as a result of reviewing the maps?
6. What recommendations or next steps do you suggest for the above noted concerns?



## Group Review Protocol (Version 2)

This protocol will help you document the gaps, repetitions, redundancies and questions you find as you edit the curriculum maps. You will use this form when you meet in small groups and have 5-9 months worth of curriculum maps.

Grade Level	Subject Area	Is there a clear connection between content, skills, and assessments? Are skills described using action verbs?	Gaps: Are there gaps in the content and skills within and across grade levels?	Repetitions or Redundancies: Do repeated skills build and spiral? Are there units of study repeated across multiple grade levels or courses?	Assessment Concerns/Questions: Are there a variety of Assessments? Are they balanced?	Other Questions, concern, and/or new understandings

# Vertical Group Review Protocol-Grade Level and Course Specific (Version 1)

This protocol will help you document the gaps, repetitions, redundancies and questions you find as you edit the curriculum maps for a specific course or grade level. You will use this form when you meet in small groups and have 5-9 months worth of curriculum maps.

Grade Level	Subject Area	Is there a clear connection between content, skills, and assessments? Are skills described using action verbs?	Gaps: Are there gaps in the content and skills within this grade level?	Repetitions or Redundancies: Do repeated skills build and spiral during the course of this grade level? Are there units of study repeated across multiple courses?	Assessment Concerns/Questions: Are there a variety of Assessments? Are they balanced?	Other Questions, concern, and/or new understandings

--	--	--	--	--	--	--

# Essential Question Protocol Version 1

Author of Map

Grade Level	Subject/ Course/ Unit	Are the questions written with age-appropriate language? Suggestions?	Are the EQ open-ended so that students and teachers can pull together skills and go deeper into the content? Suggestions?	Are the EQ open-ended so a student's natural curiosity can surface? Suggestions?	Do the EQ allow students to uncover the most important skills/concepts? Suggestions?
		Will students be able to answer the EQ given the amount of time provided for the unit/lesson? Suggestions?	Are the questions sequenced logically? Suggestions?	Are the questions repetitious? Suggestions?	Are the questions distinct and substantial? Suggestions?

Reviewer: \_\_\_\_\_

Essential Question Protocol  
Version 2

Author of Map \_\_\_\_\_ Grade Level: \_\_\_\_\_

Subject/Course/Unit: \_\_\_\_\_ Map reviewed by: \_\_\_\_\_

1. Are the essential questions arguable? \_\_\_\_\_ Suggestions:
  
2. Are the EQ open-ended so students and teachers can pull together skills and go deeper into the content? \_\_\_\_\_  
Suggestions:
  
3. Are the questions written using student friendly language? \_\_\_\_\_ Suggestions:
  
4. Do the essential questions allow for connections across disciplines? \_\_\_\_\_ Suggestions:
  
5. Do the essential questions ask the student to focus on deeper meaning? (analyze, synthesize, evaluate)  
\_\_\_\_\_ Suggestions:
  
6. Do the essential questions reflect the standards? \_\_\_\_\_ Suggestions:
  
7. Do the essential questions call for students to connect to real life? \_\_\_\_\_ Suggestions:
  
8. Do the essential questions connect to the lessons, readings, activities and discussions? \_\_\_\_\_  
Suggestions:



Alignment Protocol for Big Ideas/Enduring Understandings, Skills and Essential Questions  
Version 1

Author of Map:

Grade Level	Subject/ Course/ Unit	Do the big ideas/enduring understandings refer to core concepts, principles, theories and process? Suggestions?	Are the big ideas able to be transferred to other contexts? Suggestions?	Do the big ideas/enduring understandings help connect important facts, skills and actions? Suggestions?	Are the skills based upon standards (local, state, national)? Suggestions?
		Do the essential questions call for a student to uncover the big ideas/enduring understanding? Suggestions?	Do the essential questions challenge student's unexamined assumptions? Suggestions?	Do the essential questions allow for sustained and focused inquiry? Suggestions?	Other comments and suggestions

Reviewed by\_\_\_\_\_



# Assessment Protocol

## Version 1

- 1) Are there multiple forms of assessment (informal checks for understanding, observation, dialogues, tests/quizzes, academic prompts, performance tasks)? \_\_\_\_\_ Comments/Suggestions:
- 2) Does at least one of the unit assessments evaluate a student's ability to efficiently and effectively use a variety of knowledge and skills to complete a complex/multistage task? \_\_\_\_\_ Comments/Suggestions:
- 3) Do the assessments identify what quality work looks like? \_\_\_\_\_ Comments/Suggestions:
- 4) Do the assessments identify how the student will be judged successful? \_\_\_\_\_ Comments/Suggestions:
- 5) Does the assessment evaluate at the same level taught? (e.g. skills are written at the analysis level and assessment is at the analysis level) \_\_\_\_\_ Comments/Suggestions:
- 6) Will the assessments reveal and distinguish those who really understood from those who only seemed to? In other words, does the evidence align with our goals? \_\_\_\_\_ Comments/Suggestions:



## **Glossary of Terms**

### **anchors**

Anchors are samples of work or performance used to set the specific performance standard for each level of a rubric. For example, attached to the paragraph describing a 6-level performance in writing would be 2-3 samples of writing that illustrate what a 6-level performance is. The anchor for the top score is often called the exemplar. Anchors contribute significantly to scoring reliability. A rubric without such anchors is typically far too ambiguous to set a clear standard for judges and performers alike. What, after all, do such phrases as sophisticated and persuasive or insightful mathematical solution mean unless we have examples of work that give concrete and stable definition to them? Anchors also support students by providing them with tangible models of quality work.

### **assessment**

To assess is to thoroughly and methodically analyze student accomplishment against specific goals and criteria. The word comes from the Latin—*assidere*—meaning "to sit beside". Assessment techniques include tests, exhibits, interviews, surveys, observation, etc. Good assessment requires a balance of techniques because each technique is limited and prone to error. How does a "test" differ from an "assessment"? A test is one type of assessment. There are other methods of assessment: clinical interviews (as in Piaget's work), observations, self-assessments, surveys, etc. To refer to assessments instead of just tests is also partly a distinction of manner and attitude, as implied by the Latin origin of the word: to assess is to 'sit with' the student. The implication is that in an assessment we make judgments; we may look beyond an individual test result to make a judgment about the student's overall or habitual performance making the judgment more reliable and valid.

The idea of educative assessment is that we deliberately design assessment to be helpful to the student. We commit to reporting out the various facets of achievement against worthy tasks, and against apt criteria; and we give useful feedback. Assessment is sometimes viewed as synonymous with evaluation although there is a subtle difference. We might well assess a student's strength and weaknesses without placing value or a grade on that performance.

### **authentic assessment**

An authentic assessment is a kind of test using one or more complex performance tasks and activities designed to replicate important, real-world challenges. The heart of authentic assessment is realistic performance-based testing—asking the student to use knowledge in real-world ways, where there are genuine purposes, audiences, and situational variables. Thus, the context of the assessment, not just the task itself, e.g. messiness of problem, ability to seek feedback and revise, access to apt resources, etc., is what makes the work authentic, not merely whether it is performance-based or hands-on. Authentic assessments are meant to do more than test—they should teach students and teachers what the doing of a subject looks like and what kinds of performance challenges are actually considered most important in a field or profession. The tasks are chosen because they are representative of essential questions or challenges facing practitioners in the field. An authentic test directly measures students on the performances we value.

By contrast, multiple-choice tests are indirect measures of performance. Compare, for example, the road test versus the written test for getting a driver's license. In the field of measurement, authentic tests are called direct tests. Note, therefore, that not all performance-based testing is authentic and not all authentic tasks are valid. A standardized writing prompt or laboratory experiment is a complex performance task but not authentic: the timed nature of the task, the enforced silence and test security, the absence of resources, etc. all make the task inauthentic even though the test result might be valid. Thus, if the paper-and-pencil test for a driver's license

correlates with driving records and accident rates, the paper and pencil test is valid even though it is an inauthentic test of driving performance. The reverse is also true. A task can be authentic but not be properly designed to allow for valid inferences about the targeted understanding. For example, asking a new driver to drive around the block is authentic but not sufficiently challenging or varied to permit valid inferences about driving ability.

### **backward design**

The principle of backward design of curriculum is straightforward. Begin with the end in mind and design toward it. Why, then, is such a view backward when it seems so logical? Because many teachers begin their unit design with the means instead of the end—textbooks, favored lessons, and time-honored activities—rather than deriving those from targeted results, such as content standards or understandings. We are advocating the reverse of this habit: one starts with the end, the desired results, and then identifies the evidence necessary to determine that the results have been achieved through assessments. With the results and assessments clearly specified, determine the necessary (enabling) knowledge and skill, and only then, the teaching needed to equip students to perform. This view is not new.

Ralph Tyler described the logic of backward design clearly and succinctly over fifty years ago: Educational objectives become the criteria by which materials are selected, content is outlined, instructional procedures are developed, and tests and examinations are prepared<sup>2</sup>. The purpose of a statement of objectives is to indicate the kinds of changes in the student to be brought about so that instructional activities can be planned and developed in a way likely to attain these objectives. Backward design may be thought of, then, as purposeful task analysis: Given a task to be accomplished, how do we get there? Or, one might call it planned coaching: what kinds of lessons and practices are needed if key performances are to be mastered?

This backward approach to curricular design especially departs from a common practice of thinking about assessment as something we do at the end, once teaching is completed. Rather than creating assessments near the conclusion of a unit of study or relying on the tests provided by textbook publishers which may not completely or appropriately assess our standards, backward design calls for us to operationalize our goals or standards in terms of assessment evidence at the beginning of the planning of a unit or course. It reminds us to begin with the question: What evidence would we accept that students have attained the desired understandings and proficiencies before proceeding to plan teaching and learning experiences?

### **benchmark**

A benchmark in an assessment system is often defined as a developmentally-apt content or performance standard, sometimes called a milepost standard. In many district-wide systems, there are benchmarks set for Grades 4, 8, 10, and 12, for example. But in industry, benchmark is often used as a verb, defined as the search for a best performance or achievement specification for a particular objective found anywhere in the world. The resulting benchmark (noun) sets the highest possible standard of performance, a goal to be met or exceeded locally. Thus, a benchmark in this sense is used when we want our assessment to be anchored by the best possible samples of work versus anchored by samples of work from an average school district. An assessment anchored by benchmarks, in either sense of the word, should not be expected to yield a predictable curve of results. Standards differ from reasonable expectations. We might get very few products or performances—or even none at all—that match the benchmark performance.

### **big ideas**

In Understanding by Design, a big idea refers to core concepts, principles, theories, processes, etc., that should serve as the focal point of curricula, instruction, and assessment. By definition, they are important and enduring. Big ideas are transferable beyond the scope of a particular unit, e.g., adaptation, allegory, the American Dream,

Significant Figures, etc. Big Ideas are the building material of understandings. They can be thought of as the meaningful patterns that enable us to connect the dots of otherwise fragmented knowledge. Such ideas go beyond discrete facts or skills to focus on larger concepts, principles or processes. These are applicable to new situations within or beyond the subject. For example, we study the enactment of the Magna Carta as a specific historical event because of its significance to a larger idea, the rule of law, whereby written laws specify the limits of a government's power and the rights of individuals, such as due process. This big idea transcends its roots in 13th century England to become a cornerstone of modern democratic societies. A big idea can also be fruitfully described as a linchpin idea. The linchpin is the pin that keeps the wheel in place on an axle.

Thus, a linchpin idea is one that is essential for understanding, without which the student cannot go anywhere either. For instance, without grasping the distinction between the letter and the spirit of the law, the American constitutional and legal system cannot be understood—even if the student is highly knowledgeable and articulate about the facts of our history. Without a focus on linchpin ideas having lasting value, there is a danger that students will be left with easily-forgotten fragments of knowledge.

### **Bloom's Taxonomy**

Over forty years ago, Benjamin Bloom and his colleagues in testing and measurement developed a schema for distinguishing the simplest forms of recall from the most sophisticated uses of knowledge in designing student assessments. Their work was summarized in the now-ubiquitous text titled, *Taxonomy of Educational Objectives: Cognitive Domain*. The book was written to classify and clarify the range of possible intellectual objectives, from the cognitively easy to the difficult; it was meant to classify degrees of understanding, in effect. As the authors often note, the writing of the book was driven by persistent problems in testing: just how should educational objectives or teacher goals be measured in light of the fact that there was (and is) no clear meaning to or agreement about the meaning of objectives such as *critical grasp of and thorough knowledge of*—phrases which have to be operationalized by test developers? In the introduction to the Taxonomy, Bloom, et al., refers to understanding as a commonly sought but ill-defined objective: "For example, some teachers believe their students should 'really understand,' others desire their students to 'internalize knowledge,' still others want their students to 'grasp the core or essence.'"<sup>3</sup> Do they all mean the same thing? Specifically, what does a student do who really understands which he does not do when he does not understand?

Through reference to the Taxonomy, teachers should be able to define such nebulous terms. They identified six cognitive levels—Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation, with the last three commonly referred to as higher order. Note that in this scheme, higher-order thinking does not include application as they defined it. This seems odd, given the seeming complex demands of application and since many advocates of authentic assessment talk about getting the student to more effectively apply knowledge. But this is not what Bloom and his colleagues meant by apply. They were speaking of those narrower cases where discrete knowledge or skill must be used in an exam setting, as where a sentence must be constructed or a math word problem solved—not of the more sophisticated act of drawing upon a repertoire to solve a complex, multi-faceted contextualized problem. The authors' description of synthesis thus better fits the meaning of application used in Understanding by Design in particular and the performance assessment movement in general, since they stress that such an aim requires the students' unique production. When Bloom's Taxonomy was updated in 2001, more emphasis was put into metacognition and the role of self-reflection in the learning process.

### **coverage**

To cover the content is to superficially teach and test content knowledge—irrespective of student understanding or engagement. The phrase generally has a negative connotation: it implies that the goal is to march through a body of material, often a textbook, within a specified time frame. Ironically, one meaning of the term, cover, is to obscure. When spoken by the covering teacher, the phrase is often coupled with an excuse linked to demands

of curriculum frameworks, e.g., I would have liked to go into greater depth, but we have to cover the content, or external testing, e.g., but the students will be tested on...and the results are published in the paper.

### **curriculum**

The word has many meanings, but the literal meaning is "the course to be run." In Understanding by Design, we use the term, curriculum, to refer to the explicit and comprehensive plan developed to honor a framework of standards. A curriculum is thus a course or program of study, composed of numerous units.

### **curriculum map**

A curriculum map is a matrix showing what is actually being taught across a system at a given point in time or range of dates. The map summarizes the proposed instruction and assessment for the time period specified. The map can be comprehensive or reported in terms of more narrowly-defined variables, e.g., only report all the standards and essential questions being addressed in November in Jones School. The map's main purpose is to help confirm alignment or point out lack of alignment with respect to larger goals. For example, the map might show that certain state standards are falling through the cracks of a grade level or that three courses are unwittingly teaching the same content in a redundant way. Maps can also help identify appropriate possibilities for cross-disciplinary collaboration.

### **enduring understandings**

Refers to the specific inferences, based on big ideas that have lasting value beyond the classroom. In Understanding by Design, designers are encouraged to write them as full-sentence statements, describing what, specifically, students should understand about the topic. The stem "Students will understand THAT..." provides a practical tool for identifying understandings. In thinking about the enduring understandings for a unit or course, teachers are encouraged to ask, What do we want students to understand and be able to use several years from now, after they have forgotten the details?

Enduring understandings are central to a discipline and are **transferable** to new situations. For example, in learning about the "rule of law", students come to understand that "written laws specify the limits of a government's power and articulate the rights of individuals, such as due process." This inference from facts, based on big ideas such as "rights" and "due process" provides a conceptual unifying lens through which to recognize the significance of the Magna Carta as well as to examine emerging democracies in the Third World. Since such understandings are generally abstract in nature and often not obvious, they require uncoverage through sustained inquiry rather than one-shot coverage. The student must "come to understand" or "be helped to grasp" the idea, as a result of work. To treat an understanding as a fact is to likely bypass the student getting it.

### **entry question**

An entry question in Understanding by Design is a simple, thought-provoking question that opens a lesson or unit. It often introduces a key idea or understanding in an accessible way. Effective entry questions spark discussion about a common experience, provocative issue, or perplexing problem, as a lead-in to the key ideas as well as the essential questions of the unit. Entry point questions should be framed for maximal simplicity, be worded in student-friendly language, have provocation value, and point toward the larger unit and essential questions. The design challenge is to enable essential and unit questions to arise naturally from the entry questions, problems, and activities.

### **essential question**

A question is essential, as opposed to either trivial or leading, if it is a question at the heart of a subject or curriculum, and promotes inquiry and uncoverage of a subject. Essential questions, thus, do not yield a single

straightforward answer, as a leading question does, but different plausible responses, about which thoughtful and knowledgeable people may disagree. An essential question can be overarching or topical, i.e. unit-specific in scope.

### Essential questions

- go to the heart of a discipline. They can be found in the most historically important and controversial problems and topics in various fields of study: Is a "good read" a great book? Was arithmetic an invention or a discovery? Is history always biased? Do men naturally differ from women? etc.
- naturally recur—throughout one's learning and in the history of the field. The same important questions get asked and re-asked as an outgrowth of the work. Our answers may become increasingly sophisticated, and our framing of the question may reflect a new nuance, but we invariably return again and again to such questions.
- raise other important questions. They invariably open up a subject, its complexities, its puzzles; they suggest fruitful research rather than leading to premature closure or unambiguous answers, for example, what do we mean by naturally differ?

### Examples of Essential Questions

- In what ways do myth and folk tale heroes reflect the values of culture?
- What is freedom?
- Which method is best for your community to deal with “solid waste”?
- Who is telling the story, and what difference does that make?
- How do background and experiences influence the development of character?
- Is behavior more strongly influenced by nature or nurture?
- Does wealth/GNP and physical size of a country relate?

### facets of understanding

A facet of understanding is one way in which a person's understanding manifests itself. In Understanding by Design, we have identified six different kinds of understanding. When we truly understand, in other words, we reveal it in our ability to

1. **explain:** provide thorough, supported, and justifiable accounts of phenomena, facts, and data.
2. **interpret:** tell meaningful stories; offer apt translations; provide a revealing historical or personal dimension to ideas and events; make it personal or accessible through images, anecdotes, analogies, models.
3. **apply:** effectively use and adapt what we know in diverse contexts.
4. **have perspective:** see points of view, with critical eyes and ears; see the big picture.
5. **empathize:** get inside, find value in what others might find odd, alien, or implausible; perceive sensitively, based on prior direct experience.
6. **have self-knowledge:** perceive the personal style, prejudices, projections, and habits of mind that both shape and impede our own understanding; we are aware of what we do not understand, why it is so hard to understand.

By speaking of facets of understanding, we imply that understanding, or lack of it, reveals itself in different mutually reinforcing ways. In other words, the more we see a student able to explain, apply, and offer multiple points of view on the same idea, etc., the more likely it is that the student understands that idea. A facet is thus more like a criterion in performance assessment than a learning style. It refers more to how we judge whether

understanding is present than our need to appeal to a learner's abilities or preferences. In the same way that an essay, to be a good one, has to be persuasive and logical, so, too do the facets suggest what we need to see if we are to conclude a student has understanding. This is not meant to imply that all six facets are always involved in any particular matter of understanding. For example, self-knowledge and empathy would not often be at stake in looking for evidence of the student's understanding many mathematical concepts. The facets do not present a quota but a framework or set of criteria for designing lessons and assessments that better develop and measure understanding.

### **genres of performance**

A genre is a type or category of intellectual performance or product. For example, we speak of genres of writing, e.g., narrative, essay, letter, or speaking, e.g., seminar discussion, formal speech, giving directions. A genre is thus a sub-set of the three main modes of intellectual performance: oral, written, displayed.

### **G.R.A.S.P.S.**

G.R.A.S.P.S. is an acronym used in Stage 2 to summarize how realistic performance tasks should be written:

- What is the **G**oal in the situation?
- What **R**ole(s) is the student expected to take in the situation?
- Who is the **A**udience?
- What is the **S**etting/**S**cenario/**S**ituation?
- What are the key **P**erformances or **P**roducts expected?
- Against what **S**tandards will the work be judged?

While G.R.A.S.P.S. is a useful device for framing the performance task, it is not a requirement.

### **knowledge and skills**

The Knowledge and Skills field in Stage One is where the designer summarizes the key content knowledge and skill goals for the unit.

### **leading question**

A leading question is a question used to teach, clarify or assess for knowledge. Unlike essential questions, leading questions have correct and/or straightforward answers. To call a question "leading" is not to damn it. Leading questions have a useful role in teaching and checking for understanding but its purpose is quite different, therefore, from an essential question.

### **matter of understanding**

To call something a "matter of understanding" is to distinguish it from other kinds of educational targets, such as discrete facts or skills. Anything that is self-evident, obvious, or a matter of mere attentive practice, is not a matter of understanding. Anything that is difficult to grasp, prone to misunderstanding, counter-intuitive, etc., is a matter of understanding. The determination of what is a matter of understanding for a given unit or course of study is influenced by contextual factors, such as the developmental level of the student.

A simple fact like the sun's rising in the east may require considerable uncoverage if the young student is to understand the larger ideas of planetary motion. Even matters of skill may have an understanding component. For example, the skill of perspective drawing is grounded in an understanding of the concepts of depth, perspective, and dimension. Having identified matters of understanding, designers must then determine what is worth understanding in a course or unit. How does one go about determining what is worth understanding from



among a range of content standards and topics? We offer four criteria, or filters, to use in selecting ideas and processes to teach for enduring understanding. To what extent does the idea, topic, or process

- represent a big idea having enduring value beyond the classroom? Enduring understandings go beyond discrete facts or skills to focus on larger concepts, principles or processes. These are applicable to new situations within or beyond the subject.
- reside at the heart of the discipline? By involving students in doing the subject, we provide them with insights into how knowledge is generated, tested, and used. Consider the ways in which people in the larger world work within the disciplines—conducting investigations in science, writing for different purposes (to inform, persuade, entertain) to real audiences, interpreting events and primary source documents in history, applying mathematics to solve real-world problems, researching, critiquing books and movies, debating issues of social and economic policy. Such authentic learning experiences shift students from that of a passive, knowledge receiver, into a more active role as constructor of meaning.
- require uncoverage? Most key ideas in the unit or course are not obvious and may be counter-intuitive. For example, in physics, students frequently struggle with ideas concerning gravity, force, and motion. When asked to predict which object, a marble or a bowling ball, will strike the ground first when dropped together, many students reveal a common misconception by incorrectly selecting the bowling ball.
- What important concepts or processes do students often have a difficult time grasping? What do they typically struggle with? About which big ideas are they likely to harbor a misconception? These are fruitful topics to select and uncover, e.g., teach for understanding.
- offer potential for engaging students? Certain ideas are inherently interesting to students at various ages. And textbook knowledge that initially seems dry or inert can be brought to life by inquiries, simulations, debates, or other kinds of inherently engaging experiences.

### **SMART goals**

The acronym SMART comes from the five components of SMART goals. 1.) Strategic and Specific; 2.) Measurable; 3.) Attainable; 4.) Results-based; 5.) Time-bound.

Roy (2007) describes SMART goals this way:

- *Strategic* goals focus on high-priority issues that are part of a comprehensive school or district plan. *Specific* goals focus on the precise needs of students for whom the goal is aimed. For example, strategic goals are determined, in part, from analyzing student achievement and behavioral data. When this data is disaggregated, commonalities and differences among student groups become more apparent.
- *Measurable* goals contain information about how a change will be calculated. The goal identifies the tools or instrument that will be used to measure whether the school or team has attained the desired results. Measurement is best accomplished by using a number of different tools and strategies. If a consistent pattern of change is seen through multiple measures, then the school will have greater confidence that its actions make the difference. For example, teams would use results from state assessment data, national standardized assessments, district or school performance measures, discipline referrals, or other instruments that measure performance, outcomes or results.
- *Attainable* goals include actions that the school can control or influence and that can be accomplished with existing resources. The team setting the goal identifies a baseline or starting point when determining whether a goal is attainable. The team also needs to know how much time and what other resources are available to accomplish the goal. There is a delicate balance between

setting a goal that is compelling and energizing to staff while not becoming so unrealistic that educators are discouraged from accepting the goal because they believe it's not possible to reach.

- *Results-based* goals identify specific outcomes that are measureable or observable. Results could be expressed as attaining a certain level of student achievement in a content area, an increase in the number of students who improve in a certain area, or as improved performance as defined and measured by a performance rubric or clear criteria. Many school people confuse “activity” with “results.” They place into their school improvement goals the “means” they will use to accomplish the goal, such as implementing a new mathematics program or using cooperative learning strategies, rather than describing the outcome they expect for students. Results-based means a clear and specific description of the results of the school’s activities.
- *Time-bound* goals identify the amount of time required to accomplish it. Goals are sometimes more compelling when there is a sense of urgency attached to them. A pre-determined timeframe can create a sense of urgency and make the goal a priority to staff and students.

In short, SMART goals help us determine which of our efforts is making a difference, encourage us to set benchmarks to monitor progress, and identify specific evaluation measures.

## **rubric**

A rubric is a criterion-based scoring guide, which enables judges to make reliable judgments about student work and students to self-assess. A rubric assesses one or more traits of performance. The rubric answers the question What does understanding or proficiency, and varying degrees thereof, for an identified result look like? A typical rubric

- is based on a continuum of performance quality, built upon a scale of different possible score points to be assigned. Scores often range from 6 as the top score, down to 1 or 0 for the lowest score.
- identifies the key traits to be examined and assessed, e.g., accuracy of results, and understanding of scientific method in a lab report.
- provides key features of performance for each level of scoring, in descriptors, which signify the degree to which the criteria have been met—thus, enabling the judge to assign the appropriate score.
- provides indicators under or within each descriptor to provide specific signs or suggestions for more accurate scoring and self-assessment.
- **stage 1**  
Stage 1 in Understanding by Design refers to all the fields of entry related to desired results. What are the desired understandings, knowledge and skills? What essential questions will students be considering? What content standards will be addressed?
- **stage 2**  
Stage 2 in Understanding by Design refers to the proposed evidence for the desired results in Stage 1. What performance tasks will students have to do to show evidence of achieving the goals laid out in Stage 1? What rubrics will be used to score performance? What Other Evidence, besides Tasks, will be collected, e.g. quizzes, observations, student logs and self-assessments, etc.?
- **stage 3**  
Stage 3 in Understanding by Design refers to the learning plan. In light of the desired results of Stage 1 and the proposed assessment of those results in Stage 2, what lessons and activities will get us there? The design of lessons, in other words, is postponed until we have carefully thought through what our goals are and what evidence we are meant to teach to—backward design.

## **uncoverage**

To uncover a subject is to do the opposite of covering it, namely, to go into depth. Uncoverage is required for all matters of understanding. Three types of content typically demand such uncoverage:

1. Principles, laws, theories, or concepts that will likely only have meaning for the student if they are seen as sensible and plausible—not out of the blue or arbitrary pronouncements, i.e. in some sense verified, induced, or justified by the student through inquiry and construction.
2. Counter-intuitive, nuanced, subtle, or otherwise easily misunderstood ideas such as gravity, evolution, imaginary numbers, irony, texts, formulae, theories, or concepts.
3. The conceptual or strategic element of any skill, such as persuasion in writing, or creating space in soccer; the clarification of effective and efficient means given the ends of skill, leading to greater purposefulness, and less mindless use of techniques. Such mindfulness can only come about by active reflection upon and analysis of performance, such as what works, what doesn't, and why.
4. **understanding**  
One of the six facets of understanding. Understanding involves more than just knowing information. We expect a person with understanding to be able to explain why it is so, not just state the facts. Such understanding emerges as a well-developed and supported theory, an account that makes sense of data, phenomena, ideas or feelings. Understanding is revealed through performances and products that clearly, thoroughly and instructively explain how things work, what they imply, where they connect, and why they happened.
5. Understandings in this sense thus go beyond merely giving back right answers to providing warranted opinions to justify how they got there and why it's right. Verbs such as justify, generalize, support, verify, prove and substantiate get at what is needed. Regardless of content, age, or sophistication of the student, when there is understanding in this sense, there is ability to show your work, explain why the answer is correct, subsume current work under more general and powerful principles, give valid evidence and argument for a view, and defend your views.

## **unpacking standards**

Identifying the big ideas and core tasks contained within a standards. For example, the world geography standard (“The student will analyze the regional development of Asia, economic and cultural characteristics and historical evolution from 1000 A.D. to the present”) could be reframed around the following larger idea: “The geography, climate and natural resources of a region influence the lifestyle, culture, and economy of its inhabitants.” A companion essential question could be “How does where you live influence how you live and work?” By unpacking the standard in this fashion, you now have a larger conceptual lens through which we can explore any geographic region over time, and compare regions.

## **W.H.E.R.E.T.O.**

W.H.E.R.E.T.O. is an acronym for helping designers build Stage 3, the learning plan. It helps the learner know

- **Where** is the unit going? Why are we headed there? What are the student's final performance obligations—the anchoring performance assessments? What are the criteria by which student work will be judged for understanding? These are questions asked by students: help the student see the answers to these questions upfront.
- **Hook** the student through engaging and provocative entry points: thought-provoking and focusing experiences, issues, oddities, problems, and challenges that point toward essential questions, core ideas, and final performance tasks.
- **Explore and Equip.** Engage students in learning experiences that allow students to explore the big ideas and essential questions; that cause students to pursue leads or hunches, research and test ideas, try things

out. Equip students for the final performances through guided instruction and coaching on needed skill and knowledge. Have them experience the ideas to make them real.

- **Rethink and Revise.** Dig deeper into ideas at issue through the facets of understanding. Revise, rehearse, and refine, as needed. Guide students in self-assessment and self-adjustment, based on feedback from inquiry, results, discussion.
- **Evaluate understanding.** Reveal what has been understood through final performances and products. Involve students in a final self-assessment to identify remaining questions, set future goals, and point toward new units and lessons.
- **Tailor or personalize the work** to ensure maximum interest and achievement. Differentiate the approaches used and provide sufficient options and variety without compromising goals to make it most likely that all students will be engaged and effectively evaluate understanding.
- **Organize and sequence the learning** for maximal engagement and effectiveness, given the desired results.

### **Sources:**

Roy, P. (2007). A tool kit for quality professional development in Arkansas. Oxford, OH: NSDC.

[http://ubdexchange.ascd.org/help\\_new.cfm?whichPageNew=help\\_glossary](http://ubdexchange.ascd.org/help_new.cfm?whichPageNew=help_glossary)

Wiggins, G., McTighe, J., (2005) Understanding by Design, 2<sup>nd</sup> Ed., Association for Supervision and Curriculum Development, Alexandria, VA.