

# **Challenge-Based Learning for Responsible and Engaged Students**

*Pennsylvania Educational Technology Exposition and Conference*

*Pre-Conference Workshop, Session PC-A01*

*Sunday, February 21, 2010*

*9:00 AM to 4:00 PM*



Twitter Conference Hashtag: #PETEC2010

Twitter Session Hashtag: #A01

Workshop Wiki: <http://lmsd-pbl.wikispaces.com>

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## Project-Based Learning Rubric

ATTRIBUTES	SCALE			
	Level 1 (Emerging)	Level 2 (Developing)	Level 3 (Implementing)	Level 4 (Leading)
Addresses Standards / Benchmarks	Target standards / benchmarks articulated from local CURRICULUM or state/national Standards	Level 1 AND... The number of standards / benchmarks are ALIGNED with project / unit's enduring understanding(s), essential question(s), and performance assessment	Level 2 AND... Standards / benchmarks limited to those that are the CENTRAL FOCUS of the unit or project and critical content and skills promoting understanding of BIG IDEA(s) at the heart of the discipline(s) ( <i>NOT a list of all possible related objectives</i> )	Level 3 AND... Addresses CROSS-CURRICULAR CONNECTIONS with standards / benchmarks in TWO or more disciplines
21st Century Learning Skills	Explicitly promotes ONE or more LIFE AND CAREER SKILLS -- flexibility & adaptability; initiative & self-direction; social & cross-cultural skills; productivity & accountability, and leadership & responsibility	Level 1 AND... Develops INFORMATION, MEDIA & TECHNOLOGY SKILLS or LEARNING & INNOVATION SKILLS by specifically addressing ONE or more of the following: information literacy, media literacy, information, communications & technology literacy, creativity & innovation skills, critical thinking & problem solving skills, or communication & collaboration skills	Level 2 AND... Develops both INFORMATION, MEDIA & TECHNOLOGY SKILLS and LEARNING & INNOVATION SKILLS by specifically addressing THREE or more of the following: information literacy, media literacy, information, communications & technology literacy, creativity & innovation skills, critical thinking & problem solving skills, or communication & collaboration skills	Level 3 AND... Incorporates into core subjects ONE or more 21st Century INTERDISCIPLINARY THEMES of global awareness; financial, economic, business & entrepreneurial literacy; civic literacy; OR health literacy (see <a href="http://tinyurl.com/21frame">http://tinyurl.com/21frame</a> )
Enduring Understandings	Expressed in a FULL SENTENCE(s) and ALIGNED with standards / benchmarks, essential questions, target knowledge and skills, and performance assessment(s)	Level 1 AND... Represents one or more BIG IDEA(s) at the heart of the discipline(s) ( <i>more than just what students should know and be able to do as a result of this unit / project -- knowing is binary; understanding is a matter of degree; avoid truisms or vague generalities; avoid ambiguity; avoid starting with "Students will understand how to..."</i> )	Level 2 AND... REQUIRES UNCOVERAGE (DEEPER UNDERSTANDING) of concept(s) that are not readily apparent to students or not obvious or true by definition or simply factual knowledge ( <i>may include both overarching understandings to promote transfer of big ideas as well as topical understandings specific enough to focus teaching, learning, and assessment</i> )	Level 3 AND... TRANSFERABLE (to other disciplines and/or situations) and RECURSIVE ( <i>not fully attainable through this unit / project alone; must be revisited periodically by students in other contexts, through other disciplines, and in multiple years</i> )

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Essential Questions	Written in DEVELOPMENTALLY APPROPRIATE language to engage student interest AND ALIGNED with standards / benchmarks, enduring understandings, and performance assessments	Level 1 AND... TWO to FIVE QUESTIONS addressing each big idea in the enduring understandings with at least one Open-Ended or Over-Arching question and limited Topical and Guiding questions	Level 2 AND... PROVOKE deep thought, new understanding, and/or more questions; cause genuine inquiry into core content; spark connections with prior learning and/or personal experience; and require consideration of alternatives, evidence, support, and justification	Level 3 AND... Students help FRAME THEIR OWN essential questions -- students are given an integral role in selecting and articulating developmentally appropriate essential questions for the project / unit
Assessments	Specifies FORMATIVE and SUMMATIVE assessments AND ALIGNED with Standards / Benchmarks, enduring understandings, and essential questions	Level 1 AND... Clear CRITERIA provided for all assessments ( <i>rubrics, exemplars, etc.</i> )	Level 2 AND... MULTIPLE ASSESSMENTS -- formats and/or modes of response providing differentiation and some student choice ( <i>overall assessment not dependent upon a single measure or task</i> )	Level 3 AND... PERFORMANCE-BASED assessments, AND AUTHENTIC situations (from student perspective), which lead to a CLEAR GRASP of UNDERSTANDINGS a CLEAR GRASP of UNDERSTANDINGS
Project-Based Learning	PRE-DETERMINED SEQUENCE of activities (teacher directed) AND ALIGNED to standards / benchmarks, enduring understandings, essential questions, and assessments	Level 1 AND... HIGHER ORDER THINKING required of students ( <i>see Bloom's Digital Taxonomy: <a href="http://tinyurl.com/2mtzvp">http://tinyurl.com/2mtzvp</a> Bloom's &amp; Webs DOK: <a href="http://tinyurl.com/5v2pc4">http://tinyurl.com/5v2pc4</a></i> )	Level 2 AND... Clearly STUDENT CENTERED with students having primary RESPONSIBILITY for organizing and developing project and opportunities for student CHOICE; teacher takes on role of facilitator	Level 3 AND... Students perceive project as AUTHENTIC and/or connected to real world
Differentiated Instruction	Multiple DI strategies designed to promote ACTIVE ENGAGEMENT FOR ALL STUDENTS ( <i>strategies may include flexible grouping, student contracts, choice of product, exit cards, ice breakers, student interest &amp; learning surveys</i> )	Level 1 AND... Strategies incorporate PRE- ASSESSMENTS and focus on at least TWO of these areas: CONTENT, PROCESS, OR PRODUCT ( <i>additional strategies may include stations, extension menus, &amp; RAFTS</i> )	Level 2 AND... FORMATIVE ASSESSMENT is used throughout the project to design DI strategies in ALL areas: CONTENT, PROCESS, AND PRODUCT ( <i>additional strategies may include tiered lessons &amp; curriculum compacting</i> )	Level 3 AND... Students are expected to SET THEIR OWN GOALS and to SELF-EVALUATE their learning

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Technology Integration	LOGISTICAL SUPPORT -- technology contributes to success of project AND FACILITATES EDUCATIONAL VALUE of project; students are primary users of technology -- LoTi Level 2 <i>(see LoTi Framework: <a href="http://bit.ly/SFutB">http://bit.ly/SFutB</a>)</i>	Level 1 AND... FACILITATES HIGHER ORDER THINKING -- LoTi Level 3 <i>(see Bloom's Digital Taxonomy: <a href="http://tinyurl.com/2mtzvp">http://tinyurl.com/2mtzvp</a> Bloom's &amp; Webs DOK: <a href="http://tinyurl.com/5v2pc4">http://tinyurl.com/5v2pc4</a>)</i>	Level 2 AND... CONTRIBUTES TO PEAK EDUCATIONAL PERFORMANCE involving real-world, authentic learning activities (as perceived by students) that could not otherwise be done -- LoTi Level 4A or B	Level 3 AND... TRANSFORMATIVE and/or TRANSPARENT -- involves access and communication beyond the classroom and/or the community; technology use is extensive, just-in-time, and significant or critical but does not over-shadow the learning -- LoTi Level 5 or 6

**SCORING:** • Each Attribute receives the number of points equivalent to the highest Rank it fully demonstrates. • Scores from multiple reviewers are averaged for each Attribute. • The points for each Attribute are totaled and divided by 8 (the number of Attributes).

Projects or Units must score over 3.0 overall to be designated a District Exemplar, and each Attribute receiving an average score greater than 3.0 is specifically designated in the formally Approved plan.