Integrating Deeper Learning and HQIR Curriculum Analysis and Adjustment Tool: Deep Learning

Purpose: This tool is designed to support district curriculum teams in analyzing a local curriculum with its high-quality instructional resource (HQIR) to determine alignment with learning science principles. This analysis will also help show where deeper learning is happening within the resource and inform how deeper learning practices may be used to make smart adjustments in order to provide more vibrant student learning experiences in Tier 1 instruction.

When to Use: This tool may be used to support districts during the HQIR adoption process as the curriculum team analyzes potential resources for alignment to the indicators below. Once an HQIR has been adopted, it is recommended that this tool is used after early implementation as districts transition into ongoing implementation (**potentially starting in year 2 and beyond**). This allows educators to develop a better understanding of the resource and its instructional design to ensure any adjustments made in ongoing implementation maintain the integrity of the resource.

Instructions for Curriculum Analysis:

- Analyze the local curriculum and HQIR for evidence of each indicator below.
- Make note of indicators or aspects of an indicator that may not be fully present.

Learning Stage	Indicators	Notes from Analysis
Deep Learning	● Students have opportunities to develop and practice metacognitive skills (e.g., recognizing problem types, selecting strategies, self-questioning) to monitor, manage and control their learning. ○ Teachers are supported with explicitly instructing students in how to acquire, improve and hone their metacognitive strategies and skills to facilitate learning.	
	● Students are provided opportunities to consolidate their learning and to develop and refine their mental models in a variety of ways. This may include: ○ Summarizing ○ Comparing and contrasting ○ Categorizing ○ Synthesizing ○ Identifying patterns ○ Making predictions	
	● Hands-on and real-world learning experiences are embedded to deepen the transfer of learning and these experiences include: ○ Explanations	

Learning Stage	Indicators	Notes from Analysis
	○ to ask themselves reflective questions to support consolidation of learning.	
	● Peer-assisted consolidation of learning engages pairs or groups of students in processing, discussing and practicing new learning. ○ Students have structured opportunities to socially construct knowledge and understanding to help them process knowledge, skills and strategies introduced through direct instruction.	
	● Writing tasks are cognitively challenging and support critical thinking. ○ Teachers are supported in providing direct instruction for targeted critical thinking skills. ○ Critical thinking in writing tasks draws upon specific disciplinary skills and background knowledge developed during the unit (e.g., analyzing theme in ELA, thinking geographically in social studies, arguing from evidence in science, quantitative reasoning in mathematics).	
	● There are opportunities for guided initial application of new knowledge, skills and strategies with formative feedback to help students consolidate new skills, strategies and procedural knowledge effectively and accurately. ○ Guided application should build upon "front-loaded" strategy instruction and modeling so students are more successful in their initial attempts to apply new skills and strategies. ○ Formative feedback is intended to support student reflection and thinking so they consider their learning and how to correct errors.	

- Based on analysis of the indicators above, it is important for districts to ensure aspects of the HQIR that align to deep learning are consistently implemented into classroom instruction. In some HQIRs, these aspects may be presented as optional and may need to be designated as "non-negotiable" elements in the local curriculum document. It may not be necessary, however, to do them all.
- While a curriculum team may choose to make discrete adjustments to address issues identified above, the deeper learning practices below also address what may not be present in a HQIR or may be used to strengthen what is only partially present.

Instructions for Curriculum Adjustment: The practices below are often associated with project-based learning, a common vehicle for deeper learning. The considerations for each deeper learning practice can help support surface learning's core components. Which considerations are taken up depends on findings from the curriculum team's analysis as well as current capacities regarding deeper learning. A few additional recommendations are:

- Use the Adjusting High-Quality Instructional Resources Tool from the Kentucky Department of Education (KDE) to help make sure adjustments made do not compromise the integrity of the HQIR's design.
- Strategically space curriculum adjustments over time to ensure they are effectively embedded and there is opportunity for leaders and teachers to develop a shared understanding of them.
- Engage with high-quality deeper learning partners, when needed, to support the district in making adjustments to the curriculum.
- Assess the needs educators may have for high-quality professional learning to develop their capacity to incorporate adjustments to their curriculum successfully.
- Consider cognitive load as complexity is added to the learning design. Additional focuses, like portrait of a learner competencies, for example, also require direct instruction (modeling, etc.), practice and feedback to support growth. Others, like aspects of authenticity, require focus as well. Make sure, therefore, adequate space is provided to move between these so students have the available "bandwidth" needed to attend to each when it is focused upon. This helps ensure academic outcomes can be met as other valuable learning and vibrant experiences happen.

Learning Stage	Deeper Learning Practices and Considerations	Notes for Curriculum Adjustment
Deep Learning	**Authenticity** ● Find outside/expert audiences for students to share their thinking with and receive feedback from, independently or collaboratively, as they develop conceptual understandings and engage in critical thinking within a discipline. ● As students begin guided application of knowledge, understandings, skills and strategies, connect this, when possible, to what will be expected of them when they work on a public product for a real-world audience.	
	Inquiry ● Maintain connection to the essential question so students see how deepening knowledge and beginning to apply skills and strategies will help them respond to it with greater sophistication. ● Continue connecting to supporting questions that follow from the essential question and are related to the learning being consolidated. Help students see how high-level questions provided by the HQIR can be linked to a larger arc of inquiry. ● As new topics, texts and tasks are experienced during deep learning, continue to look for opportunities for students to refine and add to questions they generated	

Learning Stage	Deeper Learning Practices and Considerations	Notes for Curriculum Adjustment
	during priming and surface learning.	
	Structured Collaboration ● As students actively process and consolidate knowledge (including vocabulary), skills and strategies, embed collaborative structures that support doing so together to capitalize upon the benefits of making learning more dynamic and social. ● Match appropriate structures to intended learning outcomes for deep learning and follow key principles for effective collaboration.	
	Voice & Choice ● When students activate relevant prior (background) knowledge to support consolidation of new knowledge, see how their individual connections can be shared across the classroom community. ● Notice where needs for new learning (knowledge, understandings, skills and strategies) might be differentiated according to readiness levels individual learners identify. ● Offer students choice in how they develop and demonstrate their consolidations of learning (e.g., summarizing, comparing and contrasting, categorizing, synthesizing, identifying patterns and/or making predictions). ● As students consolidate connections between subject-specific vocabulary and core concepts, notice where new vocabulary can be integrated into their own voices during challenging writing tasks and guided application. ● As students self-monitor and reflect on progress toward their individual goals (academic goals, Portrait of a Learning competency goals, interest goals, etc.) help them see how consolidating new learning supports reaching of those goals and how they can identify gaps in learning that would require seeking support.	