

Equity Lenses for High-Quality Mathematics Instructional Resources

<i>Lens</i>	What does this mean? What does this look like? What is the classroom experience students have when resources fulfill this lens?	What do we look for in mathematics resources?* <i>Note: Teacher-facing resources (ex. teacher guides, worked examples, mathematical models, and strategies) and student-facing resources (ex. tasks and assessments) are key points of examination in resource selection</i>
<i>Resources meet the high-quality instructional markers for the content area and the KDE characteristics of High-Quality Instructional Resources.</i>	The KDE has developed a set of criteria for what is considered high-quality as districts examine resources. These provide a strong foundation for resources used in schools and districts throughout the state.	<ul style="list-style-type: none"> • Focus on Grade-Level Content; • Target of the Standard and Cognitive Complexity; • Standards for Mathematical Practice; and • Access to Standards for All Learners
<i>Resources recognize, celebrate and leverage students' cultures and identities and provide opportunities to broaden perspectives by learning about other cultures.</i>	<p>Students' cultures are affirmed and included as scaffolds for learning; students' unique strengths (language, culture, neurodiversity, passions) are recognized and celebrated and leveraged.</p> <p>Resources nurture, reinforce, and celebrate students' identities as competent mathematics learners with interesting and worthy ideas to share.</p> <p>Students broaden their perspectives by learning about other cultures; they have</p>	<ul style="list-style-type: none"> • Tasks and questions provide opportunities to bring in students' existing funds of knowledge (culture, contexts, language, and experiences) to make sense of mathematics. • Opportunities to connect vocabulary to students' home languages • Diversity of people featured in mathematical contexts and tasks: Visually diverse, different family structures, different ethnicities and nationalities, neurodiversity, gender, religion • Resources encourage the development of students' identities as competent learners of mathematics <ul style="list-style-type: none"> ○ Communicate the belief that students' understanding will grow and evolve over time ○ Provide opportunities for students to create and design their own mathematical problems, leveraging their funds of knowledge

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	opportunities to explore multiple perspectives on topics, which avoids single stories and offers opportunities to disrupt negative narratives.	<ul style="list-style-type: none"> ○ Guidance for teachers to provide authentic and instructive (instead of solely evaluative) feedback that invites students to engage in deeper reflection about their own strengths ● Prompts and/or suggestions to support teachers to learn about and be aware of their assumptions and/or beliefs about students’ cultures and identities and how to leverage students’ cultures and identities in lessons
<i>Resources provide opportunities for students to lead learning that is meaningful and relevant to them, both in connection to their local context and communities and the broader global context of the world.</i>	<p>Students are drivers of their learning--the classroom is student-centered, and resources offer students opportunities to exercise choice and voice in their learning. The resources students engage with (contexts, tasks, assessments) connect to students’ local communities and global context as well to make them meaningful and relevant.</p> <p>Students are asked, “What challenges exist in your community?” and able to design their learning around those challenges.</p>	<ul style="list-style-type: none"> ● Authentic tasks: Students identify challenges they see in their context and communities (local and global) as part of the lessons, tasks, assessments ● Opportunities for students to engage in collective activities, like collaborative work groups, to co-construct mathematical knowledge and achieve shared goals ● Opportunities for students to share their mathematical ideas and learn from ideas of others ● Prompts and/or suggestions to support teachers and students to make connections from the curriculum to their prior knowledge and experience, as well as their local community

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<i>Resources provide engagement with grade-level content and the KAS for all students.</i>	Scaffolds and supplementary materials are designed to provide access to grade-level content for all students and do not solely provide previous grade-level content and/or content that has been reduced in cognitive complexity. Scaffolding should lead students to engage in content at the same level of cognitive complexity, though differentiation may be needed to make the content accessible for all students.	<ul style="list-style-type: none"> • Alignment to grade-level or course-level <i>Kentucky Academic Standards (KAS)</i> • Coherent construction: standards and topics appropriately relate new content to math content within or across grades • Opportunities for students to develop conceptual understanding of a mathematical topic comes before expectations of fluency or procedural skill • Opportunities for students to apply mathematics flexibly and meaningfully in problem-solving contexts, especially when called for in modeling standards • A variety of scaffolds (at task-level, lesson-level, and unit-level) are offered to bridge unfinished learning to grade-level learning for all students • Scaffolds support students to lead their learning (shifts are not made to be more heavily teacher-directed)
<i>Resources allow students to engage and demonstrate their learning in a variety of ways.</i>	Assessments exist in a variety of formats to measure students' experiences and learning of KAS (e.g., exit tickets, feedback, reflection, curricular tasks, unit assessments). Students are able to express their learning authentically, with their experiences and perspectives valued.	<ul style="list-style-type: none"> • Tasks are open-ended and when possible, connected to a local or community issue • Opportunities for public discussion and debates of ideas and solution strategies (whole-class, small-group, pair-share) • Opportunities for linguistic diversity to show up in the way students express their learning • Multiple solution pathways: Guidance or examples of multiple strategies and/or models offer students individuality and flexibility in how to approach finding solutions

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		<ul style="list-style-type: none"> • Opportunities for students to make connections among mathematical representations to deepen understanding of mathematical concepts and procedures

*Note to districts/schools: Once a HQIR is selected, provide ongoing, targeted professional learning on the look-fors aligned to your instructional vision developed in Phase 2 of the Curriculum Development Process.