

Questions within the Instructional Practice Guide: Lesson Planning Tool (organized by planning module, in the order the questions appear in the tool):

Module	Navigation Item	Questions	Core Action/ Indicators from Coaching Tool
Planning a Standards-Aligned Lesson	Focus: Standards & Clusters	Standards Selection What standard(s) and/or cluster(s) am I targeting in this lesson? Start typing below to pull up one or more grade-level standards.	Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. K-8: Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof. HS: Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.
	Coherence	Determine Coherence and Additional Work: How does this work connect to work in previous or future grades and what will I do to make that connection? If applicable, how does this <u>supporting work</u> of the grade connect to the major work of the grade and what will I do to make that connection? If applicable, why am I covering content from a <u>different grade level</u> and how does it connect to on-grade level work?	Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. K-8: Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof. HS: Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.
	Coherence	Determine Coherence and Major Work: How does this work connect to previous or future work in the grade?	Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. Indicator B: The lesson intentionally relates new concepts to students' prior skills and knowledge.
	Learning Goal	Learning Goal What is the objective or learning goal for students in this lesson?	Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. K-8: Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof. HS: Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.

	Rigor	Rigor Selection: Which aspect(s) of rigor do the targeted standards require?	Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. Indicator C: The lesson intentionally targets the aspect(s) of rigor (conceptual understanding, procedural skill and fluency, application) called for by the standard(s) being addressed.
	Mathematical Explanations	Mathematical Explanations What explanations, representations, and/or examples will I share to make the mathematics of this lesson clear?	Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. K-8: Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof. HS: Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.
	K-8 Grade-Level Problems HS: Course-Level Problems	Grade-Level Problems K-8 What grade-level problem(s) will I ask the whole class to solve? Attach a document or write below. Course-Level Problems HS: What course-level problem(s) will I ask the whole class to solve? Attach a document or write below.	Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. K-8: Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof. HS: Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.
	Check for Understanding	Check for Understanding What strategies and opportunities will I use to check for understanding throughout the lesson?	Core Action 2: Employ instructional practices that allow all students to master the content of the lesson. Indicator D: The teacher deliberately checks for understanding throughout the lesson and adapts the lesson according to student understanding.
	Discussion Questions	Discussion Questions What questions will I ask to allow students to share their thinking and when will that happen in this lesson? [new question]	Core Action 3: Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson. Indicator C: The teacher establishes a classroom culture in which students explain their thinking. Students elaborate with a second sentence (spontaneously or prompted by the teacher or another student) to explain their thinking and connect it to their first sentence.

Mathematics of the Lesson	Selected Standard(s)	<p>Selected Standards</p> <p>Will the lesson address a part of the standard(s) or the entire standard(s)? Explain.</p>	<p>K-8 ONLY Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof.</p> <p>HS ONLY Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.</p>
	Key Mathematics	<p>Key Idea</p> <p>What is the key mathematical idea or concept from the standard(s) I am targeting?</p>	<p>Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics.</p> <p>K-8: Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof.</p> <p>HS: Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.</p>
	Key mathematics	<p>Standard Depth</p> <p>How will I ensure this lesson will reach the depth of the expectations of the standard(s) targeted?</p>	<p>Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics.</p> <p>K-8: Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof.</p> <p>HS: Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.</p>
	Mathematical Explanations	<p>Mathematical Explanations</p> <p>What common misconceptions related to this topic, including mnemonics or tricks, do I anticipate will arise?</p> <p>How am I going to address these misconceptions to strengthen students' understanding of the content?</p>	<p>Core Action 2 Employ instructional practices that allow all students to master the content of the lesson.</p> <p>Indicator D: The teacher deliberately checks for understanding throughout the lesson and adapts the lesson according to student understanding.</p>
	Mathematical Language	<p>Mathematical Language</p> <p>What mathematical language should students use in this lesson?</p> <p>What informal mathematical language do I expect to hear?</p> <p>How will I connect students' informal language to the precise mathematical language of this lesson?</p>	<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator E: The teacher connects and develops students' informal language to precise mathematical language appropriate to their grade.</p> <p>Students use precise mathematical language in their explanations and discussions.</p>

Coherent Connections	Coherence: Prior Knowledge	<p>Prior Knowledge</p> <p>What prior skills and knowledge might students bring to this lesson?</p> <p>What unfinished learning from earlier grades might I need to address within the context of this lesson?</p> <p>How will the lesson explicitly connect to and build on students' prior skills and knowledge? What will I say or show my students to make this connection clear?</p>	<p>Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics.</p> <p>Indicator B: The lesson intentionally relates new concepts to students' prior skills and knowledge.</p>
	Coherence: Future Work	<p>Future Work</p> <p>How does the mathematics of this lesson lay the foundation for future work?</p>	<p>Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics.</p> <p>Indicator B: The lesson intentionally relates new concepts to students' prior skills and knowledge.</p>
Problems & Exercises	Student Thinking	<p>Student Thinking</p> <p>Which problem(s) will prompt students to share their thinking and apply their mathematical language?</p>	<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator A: The teacher poses high-quality questions and problems that prompt students to share their developing thinking about the content of the lesson.</p> <p>Students share their developing thinking about the content of the lesson</p>
	Perseverance	<p>Student Perseverance</p> <p>Which problem(s), if any, will require students to persevere?</p> <p>How will I encourage students to persist with this problem even after initial difficulty?</p>	<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator B: The teacher encourages reasoning and problem solving by posing challenging problems that offer opportunities for productive struggle.</p> <p>Students persevere in solving problems in the face of initial difficulty.</p> <p>Indicator G: The teacher asks students to explain and justify work and provides feedback that helps students revise initial work.</p> <p>Student work includes revisions, especially revised explanations and justifications.</p>

	Justifications	<p>Student Explanations</p> <p>Which problem(s) will require my students to explain and justify their work?</p>	<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator G: The teacher asks students to explain and justify work and provides feedback that helps students revise initial work.</p> <p>Student work includes revisions, especially revised explanations and justifications.</p>
	Solution Methods	<p>Solution Methods</p> <p>What solution methods or representations do I anticipate seeing from students?</p>	<p>Core Action 2: Employ instructional practices that allow all students to master the content of the lesson.</p> <p>Indicator C: The teacher strengthens all students' understanding of the content by sharing a variety of students' representations and solution methods.</p>
	Adapting the Lesson	<p>Adapting the Lesson</p> <p>Think about students who might need extra support or extension.</p> <p>What scaffolding will I use to support students?</p> <p>How will I address remediation or unfinished learning in the context of the grade-level work?</p> <p>What extension work will I prepare for students who are ready for deeper engagement with grade-level content?</p>	<p>Core Action 2 Employ instructional practices that allow all students to master the content of the lesson.</p> <p>K-8: Indicator B: The teacher provides opportunities for students to work with and practice grade-level problems and exercises.</p> <p>HS: Indicator B: The teacher provides opportunities for students to work with and practice course-level problems and exercises.</p>
	Tools	<p>Student Tools</p> <p>Select the tools may be useful as students solve the problems posed in this lesson.</p> <p>How will I encourage them to independently choose appropriate tools?</p>	<p>Core Action 3: Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator F: The teacher establishes a classroom culture in which students choose and use appropriate tools when solving a problem.</p> <p>Students use appropriate tools strategically when solving a problem</p>
	Addressing Rigor	<p>Addressing Rigor</p> <p>Describe how the problems in this lesson address the aspect of rigor targeted by the standards.</p>	<p>Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics.</p> <p>Indicator C: The lesson intentionally targets the aspect(s) of rigor (conceptual understanding, procedural skill and fluency, application) called for by the standard(s) being addressed.</p>
Formative Assessment Strategies	Check for Understanding	<p>Check for Understanding</p> <p>How will I use the information gained from these checks for understanding?</p>	<p>Core Action 2 Employ instructional practices that allow all students to master the content of the lesson.</p> <p>Indicator D: The teacher deliberately checks for understanding throughout the lesson and adapts the lesson according to student understanding.</p>

	Feedback & Revision	<p>Feedback & Revision</p> <p>How will I provide feedback to students?</p> <p>Will there be an opportunity in this lesson for students to revise their work? If so, when?</p>	<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator G: The teacher asks students to explain and justify work and provides feedback that helps students revise initial work.</p> <p>Student work includes revisions, especially revised explanations and justifications.</p>
Classroom Discussion	Structuring Discussions	<p>Structuring Discussions</p> <p>What ideas/concepts will I focus on during discussions?</p> <p>How will I select which students will share/present their mathematical work? How will I sequence student responses to connect and develop all students' understanding of the topic at hand?</p>	<p>Core Action 2: Employ instructional practices that allow all students to master the content of the lesson.</p> <p>Indicator A: The teacher makes the mathematics of the lesson explicit by using explanations, representations, and/or examples.</p> <p>Indicator C: The teacher strengthens all students' understanding of the content by sharing a variety of students' representations and solution methods</p>
	Student-driven Discussions	<p>Student-driven Discussions</p> <p>How will I encourage students to talk about, ask questions about, and learn from other students' thinking?</p>	<p>Core Action 3: Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator C: The teacher establishes a classroom culture in which students explain their thinking.</p> <p>Students elaborate with a second sentence (spontaneously or prompted by the teacher or another student) to explain their thinking and connect it to their first sentence</p>
	Lesson Summary	<p>Lesson Summary:</p> <p>What will the summary of the lesson look or sound like?</p> <p>What student work and discussion will I highlight to reinforce the mathematical objective(s) of the lesson?</p>	<p>Core Action 2: Employ instructional practices that allow all students to master the content of the lesson.</p> <p>Indicator E: The teacher summarizes the mathematics with references to student work and discussion in order to reinforce the focus of the lesson.</p>

Questions within the Instructional Practice Guide: Lesson Planning Tool (organized by Core Action and Indicator from the Instructional Practice Guide: Coaching Tool):

This format was created to help to facilitate discussion with a peer, coach, or supervisor who is using the Coaching Tool for non-evaluative observation.

Core Action/ Indicators from Coaching Tool	Module	Navigation Item	Questions
<p>Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics.</p> <p>K-8: Indicator A: The lesson focuses on the depth of grade-level cluster(s), grade-level content standard(s) or part(s) thereof.</p> <p>HS: Indicator A: The lesson focuses on the depth of course-level cluster(s), course-level content standard(s) or part(s) thereof.</p>	Planning a Standards-Aligned Lesson	Focus: Standards & Clusters	<p>Standards Selection</p> <p>What standard(s) and/or cluster(s) am I targeting in this lesson?</p>
	Planning a Standards-Aligned Lesson	Coherence	<p>Determine Coherence and Additional Work:</p> <p>How does this work connect to work in previous or future grades and what will I do to make that connection?</p> <p>If applicable, how does this <u>supporting</u> work of the grade connect to the major work of the grade and what will I do to make that connection?</p> <p>If applicable, Why am I covering content from a <u>different grade level</u> and how does it connect to on-grade level work?</p>
	Planning a Standards-Aligned Lesson	Learning Goal	<p>Learning Goal</p> <p>What is the objective or learning goal for students in this lesson?</p>
	Planning a Standards-Aligned Lesson	Mathematical Explanations	<p>Mathematical Explanations</p> <p>What explanations, representations, and/or examples will I share to make the mathematics of this lesson clear?</p>

	Mathematics of the Lesson	Selected Standard(s)	Selected Standards Will the lesson address a part of the standard(s) or the entire standard(s)? Explain.
	Mathematics of the Lesson	Key Mathematics	Key Idea What is the key mathematical idea or concept from the standard(s) I am targeting?
	Mathematics of the Lesson	Key mathematics	Standard Depth How will I ensure this lesson will reach the depth of the expectations of the standard(s) targeted?
Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. Indicator B: The lesson intentionally relates new concepts to students' prior skills and knowledge.	Planning a Standards-Aligned Lesson	Coherence	Determine Coherence and Major Work: How does this work connect to previous or future work in the grade?
	Coherent Connections	Coherence: Prior Knowledge	Prior Knowledge What prior skills and knowledge might students bring to this lesson? What unfinished learning from earlier grades might I need to address within the context of this lesson? How will the lesson explicitly connect to and build on students' prior skills and knowledge? What will I say or show my students to make this connection clear?

	Coherent Connections	Coherence: Future Work	Future Work How does the mathematics of this lesson lay the foundation for future work?
Core Action 1: Ensure the work of the lesson reflects the Shifts required by the CCSS for Mathematics. Indicator C: The lesson intentionally targets the aspect(s) of rigor (conceptual understanding, procedural skill and fluency, application) called for by the standard(s) being addressed.	Planning a Standards-Aligned Lesson	Rigor	Rigor Selection: Which aspect(s) of rigor do the targeted standards require?
	Problems & Exercises	Addressing Rigor	Addressing Rigor Describe how the problems in this lesson address the aspect of rigor targeted by the standards.
Core Action 2: Employ instructional practices that allow all students to master the content of the lesson. Indicator A: The teacher makes the mathematics of the lesson explicit by using explanations, representations, and/or examples. Indicator C: The teacher strengthens all students' understanding of the content by sharing a variety of students' representations and solution methods	Classroom Discussion	Structuring Discussions	Structuring Discussions What ideas/concepts will I focus on during discussions? How will I select which students will share/present their mathematical work? How will I sequence student responses to connect and develop all students' understanding of the topic at hand?
Core Action 2 Employ instructional practices that allow all students to master the content of the lesson. K-8: Indicator B: The teacher provides opportunities for students to work with and practice grade-level problems and exercises. HS: Indicator B: The teacher provides opportunities for students to work with and practice course-level problems	Planning a Standards-Aligned Lesson	K-8 Grade-Level Problems HS: Course-Level Problems	Grade-Level Problems K-8 What grade-level problem(s) will I ask the whole class to solve? Attach a document or write below. Course-Level Problems HS: What course-level problem(s) will I ask the whole class to solve? Attach a document or write below.

and exercises.	Problems & Exercises	Adapting the Lesson	<p>Adapting the Lesson</p> <p>Think about students who might need extra support or extension. What scaffolding will I use to support students?</p> <p>How will I address remediation or unfinished learning in the context of the grade-level work?</p> <p>What extension work will I prepare for students who are ready for deeper engagement with grade-level content?</p>
Core Action 2: Employ instructional practices that allow all students to master the content of the lesson. Indicator C: The teacher strengthens all students' understanding of the content by sharing a variety of students' representations and solution methods.	Problems & Exercises	Solution Methods	<p>Solution Methods</p> <p>What solution methods or representations do I anticipate seeing from students?</p>
Core Action 2: Employ instructional practices that allow all students to master the content of the lesson. Indicator D: The teacher deliberately checks for understanding throughout the lesson and adapts the lesson according to student understanding.	Planning a Standards-Aligned Lesson	Check for Understanding	<p>Check for Understanding</p> <p>What strategies and opportunities will I use to check for understanding throughout the lesson?</p>
	Mathematics of the Lesson	Mathematical Explanations	<p>Mathematical Explanations</p> <p>What common misconceptions related to this topic, including mnemonics or tricks, do I anticipate will arise?</p> <p>How am I going to address these misconceptions to strengthen students' understanding of the content?</p>
	Formative Assessment Strategies	Check for Understanding	<p>Check for Understanding</p> <p>How will I use the information gained from these checks for understanding?</p>
Core Action 2: Employ instructional practices that allow all students to master the content of the lesson. Indicator E: The teacher summarizes the mathematics with references to student work and discussion in order to reinforce the focus of the lesson.	Classroom Discussion	Lesson Summary	<p>Lesson Summary:</p> <p>What will the summary of the lesson look or sound like?</p> <p>What student work and discussion will I highlight to reinforce the mathematical objective(s) of the lesson?</p>

<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator A: The teacher poses high-quality questions and problems that prompt students to share their developing thinking about the content of the lesson.</p> <p>Students share their developing thinking about the content of the lesson</p>	Problems & Exercises	Student Thinking	<p>Student Thinking</p> <p>Which problem(s) will prompt students to share their thinking and apply their mathematical language?</p>
<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator B: The teacher encourages reasoning and problem solving by posing challenging problems that offer opportunities for productive struggle.</p> <p>Students persevere in solving problems in the face of initial difficulty.</p> <p>Indicator G: The teacher asks students to explain and justify work and provides feedback that helps students revise initial work.</p> <p>Student work includes revisions, especially revised explanations and justifications.</p>	Problems & Exercises	Perseverance	<p>Student Perseverance</p> <p>Which problem(s), if any, will require students to persevere?</p> <p>How will I encourage students to persist with this problem even after initial difficulty?</p>
<p>Core Action 3: Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator C: The teacher establishes a classroom culture in which students explain their thinking.</p> <p>Students elaborate with a second sentence (spontaneously or prompted by the teacher or another student) to explain their thinking and connect it to their first sentence.</p>	Planning a Standards-Aligned Lesson	Discussion Questions	<p>Discussion Questions</p> <p>What questions will I ask to allow students to share their thinking and when will that happen in this lesson? [new question]</p>
	Classroom Discussion	Student-driven Discussions	<p>Student-driven Discussions</p> <p>How will I encourage students to talk about, ask questions about, and learn from other students' thinking?</p>

<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator E: The teacher connects and develops students' informal language to precise mathematical language appropriate to their grade.</p> <p>Students use precise mathematical language in their explanations and discussions.</p>	Mathematics of the Lesson	Mathematical Language	<p>Mathematical Language</p> <p>What mathematical language should students use in this lesson?</p> <p>What informal mathematical language do I expect to hear?</p> <p>How will I connect students' informal language to the precise mathematical language of this lesson?</p>
<p>Core Action 3: Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator F: The teacher establishes a classroom culture in which students choose and use appropriate tools when solving a problem.</p> <p>Students use appropriate tools strategically when solving a problem</p>	Problems & Exercises	Tools	<p>Student Tools</p> <p>Select the tools may be useful as students solve the problems posed in this lesson.</p> <p>How will I encourage them to independently choose appropriate tools?</p>
<p>Core Action 3 Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.</p> <p>Indicator G: The teacher asks students to explain and justify work and provides feedback that helps students revise initial work.</p> <p>Student work includes revisions, especially revised explanations and justifications.</p>	Problems & Exercises	Justifications	<p>Student Explanations</p> <p>Which problem(s) will require my students to explain and justify their work?</p>
	Formative Assessment Strategies	Feedback & Revision	<p>Feedback & Revision</p> <p>How will I provide feedback to students?</p> <p>Will there be an opportunity in this lesson for students to revise their work? If so, when?</p>