

Science Classroom Walkthrough Tool: Targeting 3D Science Instruction, Key Levers for Instructional Leaders

Impact Areas	Indicators	Notes	
Structures for Learning	1. Students are engaged in the work of the lesson from start to finish; there is a sense of urgency about how time is used.		
	Look Fors: <ul style="list-style-type: none">Students complete instructional tasks, ask appropriate questions, and engage in scientific discourse. (3b, 3c)The pace of the lesson is intentional, providing students many opportunities to engage in activities with little downtime. (3c)Students know and follow the behavioral and academic expectations for the science classroom setting. (2c, 2d)Students execute transitions, routines, and procedures in an orderly and efficient manner. (2d)Students demonstrate joy, excitement and/or interest in what they are learning. (2b)		Strong Evidence Most look-fors are observed with skillful application.
			Partial Evidence Some look-fors are observed with skillful application.
			Little to No Evidence Little to no evidence of look-fors are observed or inconsistent application.
Science Aligned Content	2. Teacher skillfully delivers grade-level appropriate lessons that reflect the three dimensions of Arkansas K-12 Science Standards: Disciplinary Core Ideas, Crosscutting Concepts, and Science and Engineering Practices.		
	Look Fors: <ul style="list-style-type: none">The purpose and focus of the lesson support students in making sense of a phenomenon and/or designing solutions to problems. (1e)The content of the lesson deepens students’ understanding of Disciplinary Core Ideas. (1e)The lesson uses elements of the Crosscutting Concepts to support students in making connections across disciplines. (1d, 1e)*The lesson is designed to engage students in Science and Engineering Practices. (3c)**The lesson explicitly provides all students access to content that is accurate and appropriately complex. (1e)		Strong Evidence Most look-fors are observed with skillful application.
			Partial Evidence Some look-fors are observed with skillful application.
			Little to No Evidence Little to no evidence of look-fors are observed or inconsistent application.
Science Teacher Instructional Practices	3. The teacher employs instructional practices that allow all students the opportunity to demonstrate their learning of the lesson content.		
	Look Fors: <ul style="list-style-type: none">There is a clear articulation of the objective to students (stated verbally, written on student work, displayed visually, etc.) (2b)Students complete most of the cognitive work. (3b,3c)		Strong Evidence Most look-fors are observed with skillful application.
Partial Evidence			

Source: Adapted from the TNTP Reading Foundational Skills Look for Tool

Science Teacher Instructional Practices (cont.)	<ul style="list-style-type: none">Students use prior knowledge and experience to make connections with the content of the lesson. (3e)Students use high-quality tools and resources (including grade-appropriate texts, data, models, graphs, manipulatives, problem sets, etc.) to make sense of the lesson content. (1d, 3c)Students have multiple opportunities to demonstrate their understanding throughout the lesson. (3c)		Some look-fors are observed with skillful application.
			Little to No Evidence Little to no evidence of look-fors are observed or inconsistent application.
Student Practice	4. The students exhibit key scientific practices while authentically engaging with the content of the lesson.		
	Look Fors: <ul style="list-style-type: none">Students spend most of the time actively doing science and as little time as possible on passive tasks (lectures, note taking, etc.) (3b)Students use scientific language appropriate to the content in their explanations and discussions. (1e, 3b)Students use evidence and models to support their thinking and answers. (3c)Students have multiple opportunities to engage with peers to share their thinking and build on each other’s reasoning. (2d, 3b)		Strong Evidence Most look-fors are observed with skillful application.
			Partial Evidence Some look-fors are observed with skillful application.
			Little to No Evidence Little to no evidence of look-fors are observed or inconsistent application.
Assessment & Differentiation	5. Teacher collects and responds to student data to adjust instruction for all student(s).		
	Look Fors: <ul style="list-style-type: none">Teacher checks for understanding throughout the lesson, and applies strategies in response to student need(s).(3d, 3e)A data collection system is in place (checklisting, exit tickets, monitoring of student work, etc.). (4b)Formative assessments ask students to explain phenomena, not recall facts. (3d)Teacher provides on-the-spot feedback, correction, and confirmations of student answers. (3a, 3d, 3e)There is small group instruction and/or differentiated tasks as appropriate. (2e)	Notes:	Strong Evidence Most look-fors are observed with skillful application.
			Partial Evidence Some look-fors are observed with skillful application.
			Little to No Evidence Little to no evidence of look-fors are observed or inconsistent application.

***Crosscutting Concepts:** 1) Patterns, 2) Cause & Effect, 3) Scale, Proportion, & Quantity, 4) Systems & System Models, 5) Energy & Matter, 6) Structure & Function, & 7) Stability & Change

****Science & Engineering Practices:** 1) Asking Questions, 2) Developing & Using Models, 3) Planning & Carrying out Investigations, 4) Analyze & Interpret Data, 5) Using Math & Computational Thinking, 6) Construction Explanations & Designing Solutions, 7) Engage in Argument from Evidence, & 8) Obtain, Evaluate, & Communicate Information

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