



Clark County School District Science Look-For Tool Kindergarten–Grade 5

The following *Science Instructional Look-For Tool: Kindergarten–Grade 5* components are organized as Science Instructional Routines based on the [Kindergarten–Grade 5 Science Instructional Framework](#), the Amplify Science Instructional Design Framework, the Next Generation Science Standards Instructional Material Design, and the NextGen Science Storylines Teacher Handbook. Each of the *Look-Fors* below are intended to serve as non-evaluative reflective elements that may be used to inform next steps toward high quality, equitable science learning for all students.

Usage note: The Science Instructional Routines may take several lessons to complete, and they cycle. As such, **observations of science instruction should focus on only one Science Instructional Routine** or a section of a Science Instructional Routine based on the lesson's placement within the Amplify Science Unit and the target for feedback. The most common sequence for a Science Instructional Routine's placement within a unit is indicated on the left side of the table starting on page 2. The **bolded** parts of the text represent the central ideas of each look-for.

This educational tool is intended to support educators in building capacity toward expert science instruction using Amplify Science instructional materials. It is not an evaluative tool.

Teacher _____ Grade _____ School _____

Date _____ Time _____ Duration _____

Classroom Environment			
Classroom shows...	Present?	Observations (Notice)	Questions (Wonder)
Classroom wall materials are posted, relevant for the current unit of instruction, based on the place in the unit, and visible for students during instruction.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
Procedures and routines are established for students to access resources and instructional materials independently.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
Evidence of embedded assessments (including On-the-Fly assessments, Critical Juncture(s), Pre Unit Assessment, and End of Unit Assessment) are present throughout the unit.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
Evidence of equitable student participation (such as nodding, hand signals, home language, non-academic language, and other modes of expression).	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
Students can respond to the Success Criteria question using what they have learned throughout the lesson(s).	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		

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Beginning of a Unit	The Anchoring Phenomenon Routine			
	Beginning a unit...	Present?	Observations (Notice)	Questions (Wonder)
	Teacher creates an opportunity for all students to voice their initial ideas about the phenomenon.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A	<i>The teacher is _____.</i> <i>The students are _____.</i>	
	Teacher does not explain or give away the phenomenon , rather identifies areas of agreement and disagreement in students' ideas about the phenomenon.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher supports students in making connections and making their prior knowledge, experiences, and assets of knowledge visible to initially make sense of the phenomenon.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher provides/elicits questions that the students want to investigate and answer throughout the unit, which the teacher will be able to use to motivate students and connect the lessons in the unit.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		

Beginning of a Lesson	The Navigation/Questioning Routine			
	Beginning a lesson...	Present?	Observations (Notice)	Questions (Wonder)
	Teacher models reviewing what the class has figured out so far by referencing the Classroom Wall/Investigation Notebooks.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher asks students to describe what they still need to figure out by referencing the Classroom Wall/Investigation Notebooks.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
Ending of a Lesson	Ending a lesson...	Present?	Observations (Notice)	Questions (Wonder)
	Teacher models reviewing what the class has figured out so far by referencing the Classroom Wall/Investigation Notebooks.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher asks students to describe what they still need to figure out by referencing the Classroom Wall/Investigation Notebooks.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		

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During Evidence Gathering Activities	The Investigation/Analysis Routine			
	During an investigation-based (evidence gathering) lesson...	Present?	Observations (Notice)	Questions (Wonder)
	Teacher asks students to describe the current investigation questions and/or any new questions that seem logical to pursue to set the stage for the investigation/evidence collection of the lesson.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher supports students in developing a plan of action for: investigation, conducting experiments, collecting evidence, analyzing data from direct investigations/second-hand datasets/texts/media, and/or evaluating data.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher asks probing questions and leading questions during the investigation to support students with making connections to prior evidence sources or the investigation purpose.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
During Evidence Reflection Opportunities	During an analysis-based (evidence discussions) lesson...	Present?	Observations (Notice)	Questions (Wonder)
	Teacher asks students to describe and explain what new evidence they have discovered.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher asks students to consider how the new evidence from the investigation/activity might help the class make progress in making sense of the phenomenon (referencing the Classroom Wall as an accounting of where they have been).	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher directs students to revisit their initial ideas, questions, and connections about the phenomenon and focus questions they generated (Classroom Wall). Teacher might ask students if they have new questions based on the evidence they collected.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		

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Application of Key Concepts: End of a <u>Chapter</u>	Problematising Routine			
	End of a Chapter...	Present?	Observations (Notice)	Questions (Wonder)
	Teacher asks students to individually and in small groups recall what 1) they figured out so far regarding the phenomenon and 2) how the new evidence they just collected in the last learning sequence can help improve their current explanations .	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher asks student groups to share their discussions, articulating what the class has figured out so far, and requires students to cite their statements using the Classroom Wall and/or Student Investigation Notebook as evidence.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher supports students in revising their explanation, model, and argument based on the new evidence.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher supports students in recognizing missing details from their explanation of the phenomenon or solution.* *Based on student progress toward the explanation/argument of the phenomenon, the Navigation/Questioning Routine or the Putting Pieces Together/Science Seminar Routine may be next.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		

End of a <u>Unit</u>	Putting Pieces Together Routine			
	Putting Pieces Together lessons...	Present?	Observations (Notice)	Questions (Wonder)
	Teacher asks student groups to share their discussions, articulating what the class has figured out so far, and requires students to cite their statements using the Classroom Wall and/or Student Investigation Notebook as evidence.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher supports students in revising their explanation, model, and argument , based on the new evidence, to develop a final explanation.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher encourages a discussion, small group and whole group, regarding if/of how the current class model , argument, or explanation could be used to explain other phenomena .	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		

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End of a Unit	Putting Pieces Together Routine			
	New Phenomenon (Last Chapter) lessons...	Present?	Observations (Notice)	Questions (Wonder)
	Teacher introduces students to a new , slightly different phenomenon .	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher encourages a discussion, small group and whole group, regarding if/of how the current class model , argument, or explanation could be used to explain other phenomena .	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher asks students to create a new model , argument, or explanation for the new phenomenon or problem by leveraging their past model, argument, or explanation.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher asks students to collaboratively discuss their new model, how it leverages their past model , and what evidence they need to collect to develop an explanation.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		
	Teacher supports students in revising their new model for the new phenomenon or problem into a final explanation.	☐ Yes, present ☐ Partially ☐ Not present ☐ N/A		

Content adapted from:

Amplify Science Amplify Science [K-8 Implementation Continuum](#)

NextGen Science Storylines [Teacher Handbook v1.1](#)

Next Generation Science Standards Lesson Screener: [A Quick Look at NGSS Lesson Design](#)