AmplifyScience

CPS Implementation Rubric

Domain 1: School Vision and Structure for Success

Indicator 1.1: All administrators and teachers have attended Amplify Science Professional Learning (PL) and are working toward full program implementation.

	Early Implementation	Emerging	Integrated	Fully Integrated
Administrators	Administrator purchased the Amplify Science program without attending professional learning (PL).	Administrators have attended one Amplify Science program PL.	Administrators attend ongoing Amplify Science PL. After attending the training, **the administrator articulates his/her expectations for classroom implementation practices to school stakeholders.**	Administrators are attending ongoing trainings, **leading the facilitation of staff development and/or allocating time for additional PL. Administrators routinely progress monitor the implementation of the Amplify Science program and evidence of PL effectiveness.** Parents and community stakeholders are informed of the Amplify Science curriculum.
Teachers	A majority of teachers have not yet attended Amplify Science program PLs.	Some teachers have attended Amplify Science program PLs. Some evidence of Amplify Science being implemented, but without fidelity (ex. only using parts of the program, not moving past the first unit in the year, or evidence of lessons being skipped).	A majority of teachers have attended at least one Amplify Science program PLs. Some evidence of implementation Amplify Science can be observed in all classrooms (ex. classroom walls have vocabulary and key concepts posted, assessment data is being collected, student science notebooks are being created).	All teachers are attending ongoing Amplify Science program PLs. Teachers are clearly implementing Amplify Science with fidelity.Teachers understand and routinely apply administrator's expectations for implementation.
Students	Students and parents are unaware of the Amplify Science curriculum.	Students and parents are provided a written notification of the Amplify Science curriculum. A parent letter has been sent home.	Students and parents are oriented to the Amplify Science curriculum and provided an opportunity to get their hands on the program components, such as digital simulations, readings, hands on materials, etc.	Students and parents are oriented to the Amplify Science curriculum. A Community and Parent engagement initiative has been launched in which opportunities to learn about and engage in the Amplify Science program are scheduled and facilitated throughout the year. Parent letters are consistently deployed to introduce each unit of study.

Domain 1: School Vision and Structure for Success (continued)

Indicator 1.2: Teachers collaboratively plan, pace, and deliberately deliver Amplify Science on a systematic, regular basis.

	Early Implementation	Emerging	Integrated	Fully Integrated
Administrators	No time is planned for collaboration within the building. Observations are not conducted of science classrooms and administrators are unfamiliar with the Amplify Science program and its parts.	Administrator designs schedule that allocates time for individual prep and planning with limited opportunities for content focused collaboration. Administrators drop in to visit classrooms periodically, without a specific focus and/or targeted feedback.	Administrators work with teachers to schedule sufficient planning and collaboration time, including focused discussions of pacing, instructional goals, materials, use of assessment data, and differentiation strategies. Administrators are familiar with the Amplify program and regularly observe a science lesson.	Administrators create compulsory schedules that allow for consistent planning and collaboration among teachers. Administrators consistently monitor the Amplify Science implementation to ensure that it is being delivered effectively and with fidelity and provides targeted feedback focused on individual and content area foci.
Teachers	Teachers do not collaboratively plan and pace science instruction and, when used, do not teach the Amplify Science program with fidelity.	Teachers occasionally share ideas about planning and pacing of science instruction. They are beginning to teach the Amplify Science program, but not with fidelity (skipping lessons, only using certain parts, not using the embedded assessments, etc.). Teachers might be struggling to stick to their ideal pacing calendar.	Teachers periodically meet to plan and pace science instruction. Clear evidence that teachers are implementing Amplify Science with fidelity and recommended pacing is mostly being followed.	Teachers engage in ongoing collaborative planning and facilitation practices, including discussions of the NGSS, pacing, instructional goals, materials, use of assessment data, differentiation strategies, and use of the benchmark assessments. Science instruction via Amplify Science is delivered consistently and with complete fidelity.
Students	Students› notebooks show little to no evidence of consistent standards-based science instruction. For example: evidence of students using an older, pre-NGSS program in the classroom.	Student notebooks show some evidence of Amplify Science usage. When asked, students can explain what topic they are exploring in the unit, but cannot articulate the phenomena, how the materials relate to each other, or the Unit/Chapter/Investigation questions.	Students› notebooks show consistent use of the Amplify Science program. Evidence includes models, evidence-based scientific explanations, data collection, notes on science articles, discussion topics, recorded key concepts, vocabulary, and unit/chapter/investigation questions.	Students› notebooks show strong and consistent evidence of rigorous science instruction. Student are engaged in a variety of learning opportunities and their work clearly shows the development of increasingly complex ideas and understanding.

Domain 2: Curriculum, Instruction, and Assessment

Indicator 2.1: Access to Amplify Science's digital resources is provided and available to all educators and students, as appropriate. *Digital Resources include: videos, digital simulations, assessments, etc.*

	Early Implementation	Emerging	Integrated	Fully Integrated
Administrators	Administrators have not given educators and students access to Amplify Science digital resources and there are no plans to make them available.	Not all teachers and support staff have a proper login to access Amplify Science digital resources. Teachers have little to no experience with navigating and using the digital Teacher›s Guide.	All educators and students have a proper login to access all Amplify Science digital resources. Teachers know how to access the materials they need from the digital Teacher›s Guide.	The entire school community—administrators , educators, students, and families—have complete access to the Amplify Science platform, as well as the Amplify Science CPS Resources webpage.
Teachers	Teachers have no access to Amplify Science›s digital resources, including access to proper login credentials.	Teachers have access to the Amplify Science digital resources but have limited experience with navigation. Teachers are comfortable having students log in and access digital simulations. They have visited the CPS Resources website once or twice before.	Teachers have access to and can navigate the digital Teacher›s Guide. They know how to manage students› use of devices in the classroom for sims as well as for assessments and other digital tools. They make full use of the materials found on the CPS Resources website.	Teachers have access to and make full use of the Amplify Science digital resources. Teachers review auto-scored assessment data, chart student graph in the Reporting app, and can explain the use and value of digital simulations.
Students	Students have no access to the Amplify Science digital resources.	Students have had some access to Amplify Science›s digital resources. Most digital tools are demonstrated by the teacher for the class.	Students have access to Amplify Science digital resources. They know how to log in, take assessments when necessary, access and use digital simulations, and more.	Students have access to Amplify Science digital resources. They know how to log in, take assessments when necessary, access and use digital simulations, and more.

Domain 2: Curriculum, Instruction, and Assessment (continued)

Indicator 2.2: Classroom environment reflects embedded Amplify Science instructional resources, routines, and current unit(s) of study.

	Early Implementation	Emerging	Integrated	Fully Integrated
Administrators	Administrators are not aware of the purpose of the program›s components, instructional routines, or digital resources. For example, the administrator believes that the kits and the Student Editions are the only student-facing aspect of the program (not recognizing the assessments, the simulations, the in-class discussions, etc.) Administrators gives misguided and/or ineffective feedback to teachers on how the teacher integrates the materials.	Administrators are partially aware and somewhat understand the purpose of the program›s components, instructional routines, and digital resources. Administrators gives partial feedback to teachers on how the teacher integrates the materials.	Administrators are aware of and understand the purpose of the program›s resources, routines, and digital resources. They know the contents of the kits, the value of the digital simulations, and the presense of embedded assessments. Administrators gives some feedback to teachers on how to integrate the resources, routines, and strategies.	Administrators are aware of and understand the purpose of the program›s resources, classroom wall resources, routines, and digital resources. They know the contents of the kits, the value of the digital simulations, and the presence of embedded assessments, as well as the benchmark assessments, and lesson level differentiation strategies. Administrators gives highly targeted feedback to teachers on how to integrate the resources, routines, and strategies, for school-wide consistency.
Teachers	No evidence that instructional resources (ex. classroom wall materials, science notebooks, kits, etc.) are being used. In-class instructional routines are clearly not being implemented. Teacher is effectively doing what they were doing before using Amplify Science.	Some instructional resources are displayed and some routines are being utilized -- but not all. For example, teachers are skipping the end of unit Science Seminar entirely, or skipping over modeling activities. An area is designated in the classroom for the classroom wall materials, but is not regularly updated.	Teacher uses the classroom wall effectively, knows the learning goals of each of their lessons, and can explain the contents of each kit. Instructional resources and routines are being utilized fully.	Teacher uses the classroom wall effectively, knows the learning goals of each of their lessons, and can explain the contents of each kit. Instructional resources and routines are being utilized fully. Teacher can differentiate lessons, adjust instruction based on embedded formative assessments, and has fully implemented the curriculum.
Students	Evidence that students are using an older program while in-class. Any use of Amplify Science is restricted to one of the program components. For example, teachers are only using the simulations but nothing else.	Student notebooks show clear evidence that Amplify Science is being used in class, including data collection, evidence-based arguments and explanations, and digital simulations. However, there are clear gaps: no mention of assessments, no end of unit Science Seminar, no notes on science articles, and no models.	Students notebooks clearly show how the class is moving through the lessons sequentially and with purpose. Students know how to access digital resources, know the purpose of the classroom wall, and can articulate the evidence sources in their investigation (sims, readings, hands on, discussions, etc.)	Students are clearly making use of instructional resources and routines such that responses in notebooks reflect vocabulary and key concepts. Students know how to access digital resources, know the purpose of the classroom wall, and can articulate the evidence sources in their investigation. Furthermore, students can explain what makes a strong argument, the engineering design process (Grade 7 and 8), and with support can reflect on the crosscutting concepts of the NGSS.

Domain 2: Curriculum, Instruction, and Assessment (continued)

Indicator 2.3: Deliberate integration of the multimodal approach to learning (do, talk, read, write, visualize). Classroom environment reflects embedded Amplify Science instructional resources, routines, and current unit(s) of study.

	Early Implementation	Emerging	Integrated	Fully Integrated
Administrators	Administrators have an awareness of Amplify Science's multimodal approach to learning (do, talk, read, write, visualize).	Administrators have a moderate understanding of how Amplify' Science's multimodal approach to learning (do, talk, read, write, visualize) impacts daily instruction. They know, for example, that students will encounter the same science idea through multiple modalities.	Administrators have a working knowledge of how Amplify Science's multimodal approach to learning (do, talk, read, write, visualize) impacts daily instruction and supports all student populations. For example, they can explain that each student gets multiple at bats with each science idea, ensuring a deep understanding -- not merely memorizing it.	Administrators have a complete understanding of how Amplify Science›s multimodal approach to learning (do, talk, read, write, visualize) impacts daily instruction, promotes three-dimensional learning, and how it connects to the Amplify Science assessments. Administrator can also discuss how the multimodal approach specifically supports English Language Learners and other student populations.
Teachers	Teacher is not aware of Amplify Science›s multimodal approach to learning (do, talk, read, write, visualize).	Teacher has somewhat of an understanding of Amplify Science›s multimodal approach to learning (do, talk, read, write, visualize). Teacher may recognize the value of the approach, but continue to mostly do business as usual (a kit or textbook-based approach).	Teacher has a working knowledge of Amplify Science›s multimodal approach to learning (do, talk, read, write, visualize). Teacher is familiar with the Amplify Science resources that support multimodal learning and provides opportunities for students to engage in each modality as recommended by the curriculum, without skipping activities.	Teacher has a complete understanding of Amplify Science›s multimodal approach to learning (do, talk, read, write, visualize) and how it promotes three dimensional learning. Teacher is able to build on the embedded multimodal opportunities to fully engage all learners, including English Language Learners.
Students	Evidence that students are engaging primarily through a single modality, such as only doing the readings, only doing the hands on activities, etc.	Students notebooks have evidence that teachers are implementing the Amplify Science program with fidelity, including the use of a multimodal approach. Notebooks reference readings, hands on activities, contain written explanations, and notes from discussions.	Students notebooks have evidence that teachers are implementing the Amplify Science program with fidelity. Notebooks reference readings, hands on activities, contain written explanations, and notes from discussions. Futhermore, students can connect the multiple modalities to their evidence sources. For example, they know that the readings are an evidence source, as are the hands on activities, the digital simulations, media, etc.	Students notebooks have evidence that teachers are implementing the Amplify Science program with fidelity. Students can connect the multiple modalities to their evidence sources. For example, they know that the readings are an evidence source, as are the hands on activities, the digital simulations, media, etc. Furthermore, student models, science seminar notes, and engineering designs (Grades 7 and 8) are clearly evident.

Domain 2: Curriculum, Instruction, and Assessment (continued)

Indicator 2.4: Evidence of formative assessment data informs instruction, organizes small group instruction, and consitently monitors student progress in order to guide and encourage student reflection and self- assessment. Engaging students in relevant and authentic assessments denotes well-defined STEM education programs.

	Early Implementation	Emerging	Integrated	Fully Integrated
Administrators	Administrators instruct teachers to use the assessments within the Amplify Science curriculum.	Administrators participate in oversight of teacher›s use of ongoing assessment that is attached to the Amplify Science curriculum.	Administrators participates in discussions with teachers and students regarding assessment data and planning effective instruction.	Administrators participates in discussions with teachers and students regarding assessment data and planning effective instruction, establishes expectations for assessment and evaluation practices, and progress monitors the impact of instructional practices and achievement data across multiple disciplines.
Teachers	Teachers have students use investigation notebook pages in classrooms, but are not aware of / do not utilize the embedded formative assessment resources in Amplify Science.	Teachers use some of the embedded Amplify Science assessments, as recommended by the curriculum. For example, they refer to the Pre/Critical Juncture/Post assessment data.	Teachers use all included forms of assessments within the Amplify Science curriculum: Pre-Unit assessments, End-of-Unit assessments, Critical Junctures, and occasionally montitor student progress using On-The-Fly assessments. Teachers use data to plan whole group or small group instruction.	Teachers effectively use all included forms of assessments within the Amplify Science curriculum to monitor student progress and to plan whole and small group instruction. Assessment data is also organized in a coherent manner to inform the needs and anticipate performance outcomes of all students. Furthermore, teachers are using the benchmark assessments to gauge student mastery of the NGSS standards.
Students	Students participate in completing work such as investigation notebook pages, modeling tools, student-to-student talk, and annotations in articles.	Students participate in completing work in the program, and in taking assessments 1-2x per unit.	Students complete the Pre-Unit assessments, End-of-Unit assessments, and Critical Junctures, and Self-Assessments. They also participate in and are held accountable for completing student work such as investigation notebook pages, modeling tools, student-to-student talk, and annotations in articles as part of the formative On-the-Fly assessment system.	Students complete the Pre-Unit assessments, End-of-Unit assessments, and Critical Junctures, and Self-Assessments. They also respond to teacher and peer feedback and self-monitor their progress when completing student work and participating in scientific discourse.

Domain 3: STEM College and Career Readiness

Indicator 3.1: Amplify Science introduces students to possible STEM degrees and/or STEM careers.

	Early Implementation	Emerging	Integrated	Fully Integrated
Administrators	Administrators offer no opportunities to support families in understanding the Amplify Science approach and how it helps their children develop a growth mind-set around their science aspirations. Administrators do not make resources dedicated to «Home/School Connections» available.	Administrators offer some opportunities to support families in understanding Amplify Science›s approach to help their children develop a growth mindset around their science aspirations. Administrators make available some resources and encouragres some «Home/School Connections.»	Administrators offer regularly scheduled opportunities to support families in understanding Amplify Science›s approach to help their children develop a growth mindset around their science aspirations. There is a regular distribution of «Home/School Connections,» unit letters, and examples of student work, including assessments.	Administrators offer frequently scheduled opportunities to support families in understanding Amplify Science›s approach to help their children develop a growth mindset around their science aspirations. There is an effective distribution of «Home/School Connections,» unit letters, and examples of student work. Student reflections and investigation into possible STEM careers is an important part of their science education.
Teachers	Teachers offer limited to no scheduled workshops to families to offer access to Amplify Science curriculum. There is little to no distribution of «Home/School Connections,» unit letters, and examples of student work, including assessments.	Teachers offer one scheduled workshop to families to offer access to Amplify Science curriculum. There is some distribution of «Home/School Connections,» unit letters, and examples of student work. Teacher allows for occasional student reflection on STEM careers that are connected to units of study.	Teachers offer regularly scheduled workshops (example: once per semester) to families to offer access to Amplify Science curriculum. There is regular distribution of «Home/School Connections,» unit letters, and examples of student work. Teacher allows for frequent student reflection on STEM careers that are connected to units of study. For example: teacher has students think about other projects a specific type of scientist/engineer might investigate that is connected to their field of study.	Teachers offer frequent and effective workshops to families to offer access to Amplify Science curriculum. There is frequent distribution of «Home/School Connection,» unit letters, and examples of student work, including assessments, writings, and models. Teacher ensures that student reflection on possible STEM careers that are connected to units of study is a critical part of their science education.
Students	Student shares little to no communications with family members about experiences with Amplify Science in the form of letters and examples of work.	Student shares some communications with family members about experiences with Amplify Science in the form of letters and examples of work. Students can recognize the STEM careers shown in Amplify Science, but do not have opportunities to reflect on them.	Student shares regular communications with family members about experiences with Amplify Science in the form of letters and examples of work, at least once per semester. Students recognize and have regular opportunities to reflect on the STEM careers shown in Amplify Science.	Student shares frequent and effective communications with family members about experiences with Amplify Science in the form of letters and examples of work. Students recognize and regularly reflect on the STEM careers shown in Amplify Science, and have explicit opportunities to investigate those careers and the other types of projects these scientists/engineers pursue.

Domain 3: STEM College and Career Readiness (continued)

Indicator 3.2: Amplify Science provides information about learning opportunities outside of school.

	Early Implementation	Emerging	Integrated	Fully Integrated
Administrators	Administrators provides limited to no resources to families to raise awareness about the importance of learning opportunities in museums, parks, gardens, etc. connected to the Amplify Science curriculum and real world experiences.	Administrators provides some resources to families to raise awareness about the importance of learning opportunities in museums, parks, gardens, etc. connected to Amplify Science and real world experiences. For example, one letter is sent to parents at the beginning of the school year, discussing learning opportunities in the abstract.	Administrators provides regular resources to families to raise awareness about the importance of learning opportunities in museums, parks, gardens, etc connected to Amplify Science and real world experiences. For example, a letter is sent each semester to parents, recommending learning opportunties that are connected to the Amplify Science units of study.	Administrators provides effective resources to families to raise awareness about the importance of learning opportunities in museums, parks, gardens, etc. connected to Amplify Science and real world experiences. Making connections between learning opportunities outside of school and Amplify Science is a key part of the science team›s culture and expectations.
Teachers	Teachers provide limited to no guidance to families to learn about experiences at informal learning institutions that connect to science and real world phenomena.	Teachers provide some guidance to families to learn about experiences at informal learning institutions that connect to science and real world phenomena. For example, teachers recommend reputable, science-focused YouTube channels, documentaries, and museums -- all connected to science, but not explicitly to Amplify Science units.	Teachers provide regular guidance to families to learn about experiences at informal learning institutions that connect to the Amplify Science curriculum and real world phenomena.	Teachers provide effective and ongoing guidance to families to learn about experiences at informal learning institutions that connect to the Amplify Science curriculum and real world phenomena. For example, with each unit of study, teachers recommend documentaries, YouTube videos, links to articles, etc.
Students	Students experience limited to no exposure to learning opportunities in museums, parks, gardens, etc. connected to Amplify Science curriculum.	Students experience some exposure to learning opportunities in museums, parks, gardens, etc connected to science, but not to Amplify Science explicitly. Students make some connections with the phenomena and content in Amplify Science to real world issues.	Students experience regular exposure to learning opportunities in museums, parks, gardens, etc explicitly connected to Amplify Science. Students regularly reflect upon and make connections between phenomena and content in Amplify Science to real world issues.	Students experience frequent exposure to learning opportunities in museums, parks, gardens, etc connected to Amplify curriculum. Students make effective connections with the phenomena and content in Amplify Science to real world issues.