

STEP

1

Surfacing Preconceptions

Student Performance	
Teacher Leader	Administrator
<p>Migrant (ELL): Having difficulty following written directions completely. Small percentage at or above proficient level on science WASL.</p> <p>Native American: Few at or above proficient level on Science WASL. Many frequently leave reasoning blank.</p> <p>Special Ed: Perform well on scaffolded tasks with one-on-one assistance but have difficulty performing independently on Science WASL.</p>	<p>Sub group populations are performing lower than the general student population.</p> <p>Specifically, our ELL students face difficulty with the language barrier in a vocabulary rich content area.</p>
Instructional Effectiveness	
Teacher Leader	Administrator
<p>Strengths: Many teachers are active participants attending professional development offerings. Most staff members are certified in their content area. Increasing use of formative assessment among most staff.</p> <p>Weaknesses: Most teachers have buy-in of effective pedagogy, few have a deep understanding and incorporate best practices. Most faculty members understand the key findings of HPL, but not all have made changes to their instructional practice to reflect and incorporate these findings. Among staff who are actively eliciting student preconceptions, there is limited knowledge of how to provide experiences for students to confront and resolve discrepancies between their ideas and their observations.</p>	<p>Strengths: The instructional capacity of the school has been increased by the recent hiring of the 7th grade science teacher with strong content and pedagogical content knowledge.</p> <p>Weaknesses: The instructional staff has been impacted by turnover and the need for long-term subs. Our effectiveness is improving with the stability of the staff.</p> <p>We are not realizing opportunities to teach science concepts in other content areas in the school.</p>
Collaborative Capacity	
Teacher Leader	Administrator
<p>Strengths: Our entire district has structured interactions between and among grade bands. High level of professional engagement in PLC work. Staff members focus on success for all students. High level of administrative support. Improved focus on on-going formative assessment.</p> <p>Weaknesses: Uneven experience with protocols for Looking At Student Work (LASW). LASW when done is not always cyclical in nature (we don't quite know how to "close the loop" on this practice to continually inform instruction). PLC working more on supportive rather than developmental practice.</p>	<p>Strengths: Through several grants, our teachers meet regularly in a collaborative PLC. I am able to attend a portion of these meetings and support these efforts as necessary. At these meetings, using Curriculum Topic Study (CTS) resources, teachers have greatly increased their content and pedagogical content knowledge.</p> <p>Weaknesses: Teachers haven't moved beyond a "supportive" level in their PLC practices. Their collaboration has not penetrated the classroom.</p>

STEP

2

Analyzing Data

	My Observations	Additional Observations
Student Performance	<p>WASL Data (8th grade):</p> <ul style="list-style-type: none"> • Native American pop. Proficiency level is well below the general population. There is no data for Native American for 2006-07. Why is this? • From 2006-07, female proficiency increased while male proficiency decreased. • There were no Special Ed students who were proficient on the 8th grade science WASL in 2005-06 and 2006-07. • More than twice the percentage of Non Special Ed students were proficient on the Science WASL in 2007 compared to 2005. 	<p>WASL Data (8th grade):</p> <ul style="list-style-type: none"> • Hispanic students started with low percentage proficiency on the WASL but have had an upward trend for two years. • Total 8th grade School population trend from 2005- 06 to 2006-07 is nearly flat.
Instructional Effectiveness	<p>Nation: 15% of observed lessons were considered to be effective Suggestions for improvement were:</p> <ul style="list-style-type: none"> • More intellectual rigor • Improved questioning techniques • More opportunities for sense making 	<p>NCOSP: Ratings in implementation, content, classroom culture, as well as the capsule ratings improved from 2005-06 to 2006-07.</p>
Collaborative Practices	<p>PLC Survey:</p> <ul style="list-style-type: none"> • Number of respondents to PLC survey dropped from 5 to 3 from 2007 to 2008. • The change in the mean was positive for every factor, some significantly (e.g. factor 1A from 2.5 – 3.83 and Factor 1B from 2.3 to 3.72) 	<p>The standard deviation was reduced for every comparable indicator in every factor from 2007 to 2008.</p>

STEPS
3-4 **Targeting Practices to Improve**

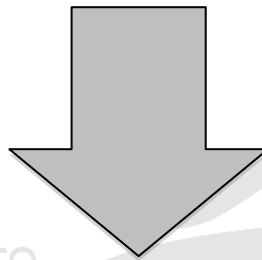
	Summary Statement	Elements to Consider
Student Performance	<p>About half of our 8th Grade students met proficiency on the Science WASL in 2007. Sub groups demonstrate much lower proficiency with NO Special ED students performing proficiently. Girls out performed boys in 2007 by about 20%.</p>	<p>I B. Teachers take personal responsibility for student success. II A. Teachers and Administrators build individual relationships with students. III B. Teachers and Administrators use data to identify problems and to inform decisions. IV A. Teachers and Administrators act to help every student succeed academically.</p> <p style="text-align: right;">Supporting Student Success Guide</p>
Instructional Effectiveness	<p>We are making steady but small improvements in instructional practice. Theoretical understandings are ahead of practical application.</p>	<p>I B. Discussions are based on scientific evidence. II A. Science content is significant, accurate, and worthwhile. II B. Science content builds on students' prior ideas or experiences. III A. Instruction fosters students' emerging understanding of science content. III B. Instruction monitors students' emerging understanding of science content VI A. Students make sense of the intended scientific ideas and concepts.</p> <p style="text-align: right;">Science Classroom Observation Guide</p>
Collaborative Practices	<p>There is strong internal support for reform among teachers. Strong agreement among faculty of the factors which affect student performance. Faculty believe that collaboration among staff will result in improved performance among students.</p>	<p>I A. The group has a common vision and applies standards as criteria in its actions, reflections, and planning. II A. The group creates an environment that fosters open communication and sharing of ideas. All members have the opportunity to learn from one another and support the group's continuous improvement. The group is organized and managed to achieve its goals. III A. The group monitors its actions, decisions, and reflections based on its common norms and goals.</p> <p style="text-align: right;">Professional Learning Community Observation Protocol</p>

STEPS
5-6 Strategic Actions: Student Performance

Targeted Elements

- 1) **IV A.** Teachers and Administrators act to help every student succeed academically.
- 2) (Optional) **III B.** Teachers and Administrators use data to identify problems and to inform decisions.

Supporting Student Success Guide



Actions	Data to Monitor Impact
<ul style="list-style-type: none"> • Frequent and ongoing formative assessment through the use of <ul style="list-style-type: none"> ○ assessment probes, ○ concept cartoons, ○ white boards, ○ science notebook entries • Increase in student discourse • Research common student ideas related to curriculum <ul style="list-style-type: none"> ○ Review Questioning Matrix to identify types of questions useful in driving student conceptual understanding 	<ul style="list-style-type: none"> • Weekly use of white barding • Digital recording of white boarding • Brainstorm possible instructional modifications (based on student responses)

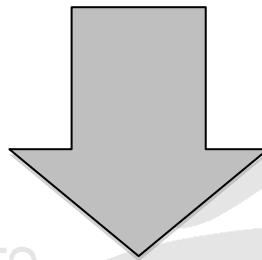
STEPS
5-6 Strategic Actions: Instructional Effectiveness

Targeted Elements

1) **II B.** Science content builds on students' prior ideas or experiences.

List your first selected element and optionally your second selected element.

Science Classroom Observation Guide



Actions	Data to Monitor Impact
<ul style="list-style-type: none"> • Use Curriculum Topic Study to direct a review of resources to research common student ideas related to our science curriculum. • Frequent and ongoing formative assessment through the use of <ul style="list-style-type: none"> ○ assessment probes, ○ concept cartoons, ○ white boards, ○ science notebook entries • Increase time allotted to engage in sense making and metacognition around the learning targets (e.g. Ask students to deconstruct their learning I.e. "What were the key experiences that helped you construct your current understanding?") 	<ul style="list-style-type: none"> • PLC examines white boards, science notebook entries, and other formative assessments, and agrees upon criteria that determine proficiency in student work. (Looking at Student Work Protocol.)

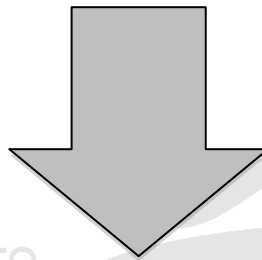
STEPS
5-6 Strategic Actions: Collaborative Practices

Targeted Elements

1) **I A.** The group has a common vision and applies standards as criteria in its actions, reflections, and planning.

List your first selected element and optionally your second selected element.

Professional Learning Community
Observation Protocol



Actions	Data to Monitor Impact
<ul style="list-style-type: none"> • Consistent use of: <ul style="list-style-type: none"> ○ Developmental PLC Cycle with supporting resources ○ Looking at Student Work Protocols ○ Curriculum Topic Study • Effective use of PLC time including: <ul style="list-style-type: none"> • Devoting a portion of PLC time to developing collaborative skills • Reflecting an effectiveness of PLC practices 	<ul style="list-style-type: none"> • Digitally record student responses on the white board to track student thinking over time. • Discuss which student responses are clear, complete, and correct. • Allow discussion of student responses to drive modifications to instruction. • Examine student white boards to see affect of modifications to instruction. • Iterative process of continually improving instruction.

**STEP
7**

PLC Action Plan

Timeframe	Action	Roles	Resources
September - June	<ul style="list-style-type: none"> • Consistent use of: <ul style="list-style-type: none"> ○ Developmental PLC Cycle with supporting resources ○ Looking at Student Work Protocols ○ Curriculum Topic Study 	TL: Facilitate, in turn, PLC meetings. Set and monitor PLC goals and objectives. Ensure the PLC remains on task through the year.	A regular time and place for PLC meetings to take place. Copies of the Developmental PLC Cycle document, LASW protocols, CTS resources in-building and available for PLC use.
		Administrator: Attend PLC meetings and support PLC work with resources when appropriate.	
		PLC Members: PLC members will share facilitation responsibilities with TL.	
September - June	<ul style="list-style-type: none"> • Effective use of PLC time including: <ul style="list-style-type: none"> • Devoting a portion of PLC time to developing collaborative skills • Reflecting an effectiveness of PLC practices 	TL: Prepare PLC meeting agendas. Monitoring PLC progress.	Regular time and place for PLC meetings.
		Administrator: Attend PLC meetings and support PLC work with resources when appropriate. Assist PLC in developing collaborative skills.	
		PLC Members: Facilitate meetings when assigned. Participate honestly in providing feedback on effectiveness of PLC.	
September - October	<ul style="list-style-type: none"> • Use Curriculum Topic Study to direct a review of resources to research common student ideas related to our science curriculum. 	TL: Prepare PLC meeting agendas. Monitoring PLC progress. Guide PLC in selection of curriculum for review.	CTS and resources for PLC members. Science Curriculum
		Administrator: Attend PLC meetings and support PLC work with resources when appropriate.	
		PLC Members: Facilitate meetings when appropriate.	

Timeframe	Action	Roles	Resources
<p>September - June</p>	<ul style="list-style-type: none"> • Research common student ideas related to curriculum <ul style="list-style-type: none"> ○ Review Questioning Matrix to identify types of questions useful in driving student conceptual understanding 	<p>TL: Prepare PLC meeting agenda. Gather meeting resources.</p> <p>Administrator: Attend PLC meetings and support PLC work with resources when appropriate. Make non-evaluative classroom observation visits to provide feedback on progress in questioning.</p> <p>PLC Members: Review curricula prior to PLC meeting. Thoughtfully engage in analyzing questioning strategies.</p>	<p>Copies of the Questioning Matrix for PLC to review.</p>
<p>November - June</p>	<ul style="list-style-type: none"> • Frequent and ongoing formative assessment through the use of <ul style="list-style-type: none"> ○ assessment probes, ○ concept cartoons, ○ white boards, ○ science notebook entries 	<p>TL: Prepare PLC meeting agendas. Monitoring PLC progress. Assign roles to PLC members. Share facilitation responsibilities.</p> <p>Administrator: Attend PLC meetings and support PLC work with resources when appropriate.</p> <p>PLC Members: Facilitate meetings when assigned.</p>	

STEP

8

PLC Meeting Plan

Logistics

Date: September 1st | **Time:** 9:00 AM | **Location:** Sue's Classroom

Participants: Jim (TL), Sally (Admin), Sue, Bob, Carroll

Facilitator: Jim

Plan

Outcome: What is the intended outcome of this meeting?

PLC will establish PLC norms and objectives and be oriented to Curriculum Topic Study (CTS).

Area Targeted for Change: Which area(s) will this meeting target?

- Student Performance:**
 Instructional Effectiveness:
 Collaborative Practices:

Actions	Resources or Materials Needed	Person Responsible
<ul style="list-style-type: none"> • Consistent use of: <ul style="list-style-type: none"> ◦ Developmental PLC Cycle with supporting resources • Effective use of PLC time including: Devoting a portion of PLC time to developing collaborative skills 	<ul style="list-style-type: none"> • Developmental PLC Cycle materials. 	Assign roles to PLC materials. Admin: Attend and participate. PLC Members: Attend and participate.
<ul style="list-style-type: none"> • Use Curriculum Topic Study to direct a review of resources to research common student ideas related to our science curriculum. 	<ul style="list-style-type: none"> • CTS materials Curriculum 	TL: Prepare CTS materials. Admin: Attend and participate. PLC Members: Attend and participate.

Agenda Items:

- Welcome
- Review meeting objectives
- Introduction to Development PLC Cycle
- Review collaborative norms and set norms for PLC
- CTS Summary Exercise