## A Science Teacher’s Story of Goal Setting for Student Growth

Ms. Nye is a 6th grade science teacher who teaches science to five classes, each class representing a diverse population. One class contains a gifted cluster, two classes have nine special education students and all classes have a free and reduced lunch population. Ms. Nye collaborates with a special education teacher, the gifted consultant, and a title one teacher. Last year, Ms. Nye set the following student growth goal: *During the 12 week unit, 100% of my students will demonstrate measurable growth in their knowledge of earth processes and cycles. Each student will improve his or her score on the district science learning check by at least 10%.*

**Context**

Ms. Nye gave her students the district science learning check when she first started the unit to gather baseline data. 78% of students scored less than 65%, 15% scored between 66-79%, and the remaining 10% scored 82%. Her interpretation of the results was that most students had either never been exposed to the content or they didn’t remember it. At the end of the unit, Ms. Nye gave the same district learning check. All students performed better on the post-assessment. Most students met the goal, increasing their score by at least 10%. However, several scores were still low and she didn’t feel that her assessment choice really gave her the results she wanted. Students were learning some content, but what was assessed on the district learning check was simply that – content knowledge. Ms. Nye wanted more for her students. Instead of simply demonstrating that they could regurgitate content knowledge, she wanted her students to demonstrate that they could apply that knowledge. She wanted to think differently about how she would set a student growth goal.

This year, Ms. Nye took a different approach to student growth goal setting. First, she wanted to simply get to know her students. She began by asking: *What do I know about my students and their abilities? What can I learn from previous years’ data? What does the data tell me?*

Ms. Nye had just learned about the Next Generation Science Standards and she wanted to begin using the new standards with her students to set a student growth goal in context of the new standards. She reflected: *How can I determine students’ abilities in respect to the practices and crosscutting concepts students should learn in these new standards?*

**Standards**

Ms. Nye decided that she could begin to identify her students’ abilities related to these cross-cutting concepts and practices. She started by working with her district science PLC to better understand the expectation of the standards. She knew this was a task she and her colleagues would continue across the school year, but it gave her a place to begin. Together, the science PLC decided what it would look like for students to demonstrate mastery in the cross-cutting concepts and scientific practices. Next, they developed a 4-leveled rubric that could be used to assess where students are in meeting mastery.

**Sources of evidence**

So, Ms. Nye began assessing her students in a variety of ways. She asked questions, she observed student discussions, she collected and analyzed student work, and she gave her students’ performance assessments. She continued to reflect. *How do I pull this information and evidence together to determine my student growth goal? Are there greater areas of need for which I should focus my goal?*Ms. Nye reflected on what the data was telling her. She noticed that instead of one large area of need that her students had a wide range of needs. Ms. Nye decided she would use the rubric her PLC designed for determining baseline data for goal setting and would collect evidence in a variety of ways. She would give students a variety of performance assessments to show how well they understood investigative design; students would respond to prompts; and students would answer a set of multiple-choice questions to demonstrate analysis and communication of data in science. This collection of evidence would result in a baseline grounded in the district rubric.

Data showed that 70% of students scored at level 2 on the rubric, while 30% performed at 1. After determining baseline data, Ms. Nye was ready to write her student growth goal. *I know that the growth goal should address growth for all my students. So, how do I make sure that all students show growth this year? How can I be sure that my goal represents meaningful and significant growth for my students in the enduring skills and concepts?*

**Baseline**

These questions continued to float in Ms. Nye’s mind as she drafted her student growth goal and shared it with her principal. Ms. Nye thought it would be reasonable for students to move up at least 2 levels in the rubric. After all, she had all year to guide that learning and all her students needed to grow in these areas. She had also had discussions with her district science PLC about what would be an appropriate target for growth. Together, they discussed past years’ trends and where students should perform at year’s end and concluded that movement of 2 or more levels on the rubric is doable, yet stretches the boundaries to create a rigorous goal. They also agreed that it is reasonable to expect 80% of students to reach proficiency.

**Rationale**

Together, Ms. Nye and her principal decided on the following student growth goal for this year: *This school year, all of my 6th grade science students will demonstrate measurable growth in their ability to apply the scientific practices. Each student will improve by two or more levels on the districts’ science rubric in the areas of engaging in argument from evidence,* and *obtaining, evaluating and communicating information.* *80% of students will perform at level 3 on the 4-point science rubric.*

Ms. Nye is anxious to share her goal with her PLC group and collaborate with them to decide strategies to help students attain the goal as well as on-going processes for monitoring students’ progress. She is looking forward to reflecting on the data throughout the school year and seeing if this process gives her the meaningful results that were a missed opportunity last year.