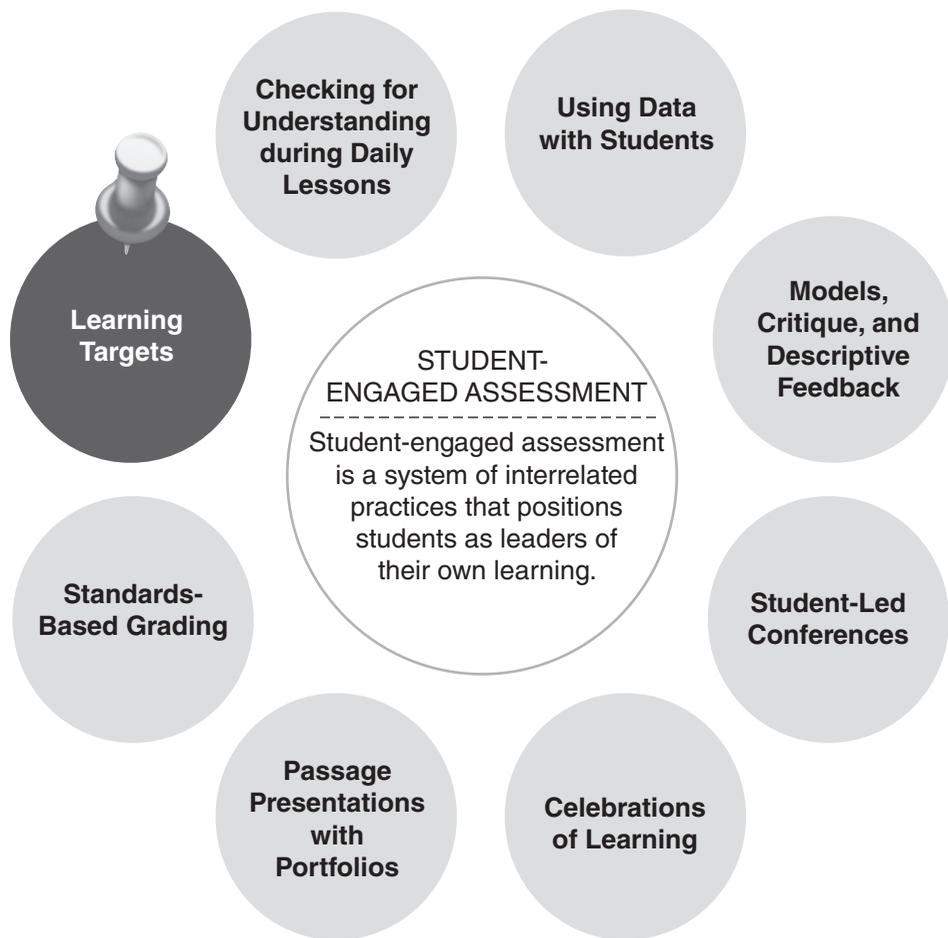
A black and white photograph of a young girl with glasses, wearing a dark t-shirt with a graphic, sitting at a desk and reading an open book. The background is softly blurred. A large, faint watermark reading 'COPYRIGHTED MATERIAL' is visible diagonally across the image.

Chapter **1**

Learning Targets



Last year I joined student ambassadors at the Springfield Renaissance School in Springfield, Massachusetts, as they gave Governor Deval Patrick a tour of their school. For the third consecutive year, the school was poised to send 100 percent of its graduates on to college, a remarkable achievement for an urban district school. Governor Patrick was there to honor the school and learn from its success. He posed a question to a student ambassador: “Destiny, would you say you are a good student?”

Destiny paused before responding: “That’s a hard question,” she said. “My habits of work learning targets are excellent. My academic learning targets are a mix—I’m still struggling to meet some of them.” Now the governor paused: “Learning targets?” he said. Destiny clarified: “The goals for what we need to know and be able to do.” The governor smiled. “Yes. Course objectives, lesson objectives. I know those.” Destiny shook her head. “No, sir. These are not the teacher’s course objectives. Learning targets belong to students. These are the things that I have to demonstrate that I can do well. I need to show evidence that I can factor equations and write essays or explain a concept in history—things like that.”

The governor nodded. “Interesting. And what are ‘habits of work’ learning targets?” Destiny was quick to answer. “Those are the most important targets of all. They are the study skills and habits we need to succeed in college and life. You *have* to focus on them here. That’s why we all go to college.”

—Ron Berger

The Foundation of Student-Engaged Assessment

The process of learning shouldn’t be a mystery. Learning targets provide students with tangible goals that they can understand and work toward. Rather than the teacher taking on all of the responsibility for meeting a lesson’s objectives, learning targets, written in student-friendly language and frequently reflected on, transfer ownership for meeting objectives from the teacher to the student. The seemingly simple work of reframing objectives written for teachers to learning targets, written for—and owned by—students, turns assessment on its head. The student becomes the main actor in assessing and improving his or her learning.

Learning targets are goals for lessons, projects, units, and courses. They are derived from standards and used to assess growth and achievement. They are written in concrete, student-friendly language—beginning with the stem “I can”—shared with students, posted in the classroom, and tracked carefully by students and teachers during the process of learning. Students spend a good deal of time discussing and analyzing them and may be involved in modifying or creating them.

When the students in Lori Laliberte’s kindergarten class at the Odyssey School in Denver learned that their “bessbugs” had died, they were sad. They had been observing and caring for the bugs as part of their study of the life cycle. The “bessbug” company agreed to send them new bugs and because one of the Common Core literacy standards for kindergartners (W.K.2) is, *Use a combination of drawing, dictating, and writing to inform informative/explanatory texts in which they name what they are writing about and supply some information about the topic*, the occasion provided an authentic opportunity to learn how to write a thank-you letter. Two learning targets guided their effort: “I can identify the main parts of a letter” and “I can explain the purpose of sending a letter.” The students knew what their learning targets were from the outset of their lesson. In the accompanying video we see Laliberte’s students actively working toward meeting these learning targets.



Watch video: “Using a Learning Target throughout a Lesson”

By translating standards into learning targets her students could make sense of, Laliberte engaged them as active partners in making progress. She knew they had met the target when they could say, “I can.” The term *target* is significant. It emphasizes that students are aiming for something specific. Learning targets are meant to focus students in this way, directing their efforts and attention, as would a physical target. Every day, students discuss, reflect, track their progress, and assess their work in relation to learning targets. Learning targets build investment in learning by giving students the language to discuss what they know and what they need to learn. As an eighth-grader at the Odyssey School remarked, “The teacher will take time to break down the target, so we know where we’re going with the learning.”

Why This Practice Matters

Learning targets help students define what they are learning and why they are learning it, enabling them to monitor their progress toward the learning goal and giving them the language for and practice with metacognition. But why do these things matter? How does student ownership of learning make them better learners? How does self-monitoring increase student achievement? What's so special about metacognition? The answer lies in their power to motivate students to learn. Learning targets help stimulate that motivation.

Learning Targets Represent Clear, Manageable Goals

Among the dynamics for student motivation is the desire to take on challenges that call on a student's present capacity. In other words, students feel motivated to accomplish a task when they know it is within their reach.

Learning Targets Inherently Provide Short-Term Success

Motivation increases when students feel successful at previous attempts. Learning targets, by definition, break down abstract content standards into smaller learning tasks.

Learning Targets Let Students Know Where They Are

One of the hallmarks of student motivation is a sense of purpose. Motivated students know how the task at hand fits into the larger scheme of things. Reaching, or not quite reaching, a learning target represents critical information for students about what they know and can do, and what they still need to learn.

Common Core Connections

- The practice of writing learning targets deepens teachers' understanding of the standards and helps them prioritize the content and skills needed to meet them.
- The Common Core standards represent a big shift in how standards are manifest in K–12 classrooms. They are not simply about coverage of content; instead, they prioritize transferable skills that will enable students to be independent learners across all disciplines. Learning targets increase students' independence by bringing the standards to life, shifting ownership of meeting them from just the teacher to both the teacher and the student.

(continued)

- Character learning targets support students in developing the habits of scholarship (e.g., independence, self-direction) named in the standards and necessary to meet them.

Character learning targets, similar to academic learning targets, articulate specific expectations for students in language that promotes student understanding and ownership. Character learning targets relate to fostering a respectful community and commitment to learning.

GETTING STARTED

Writing Learning Targets

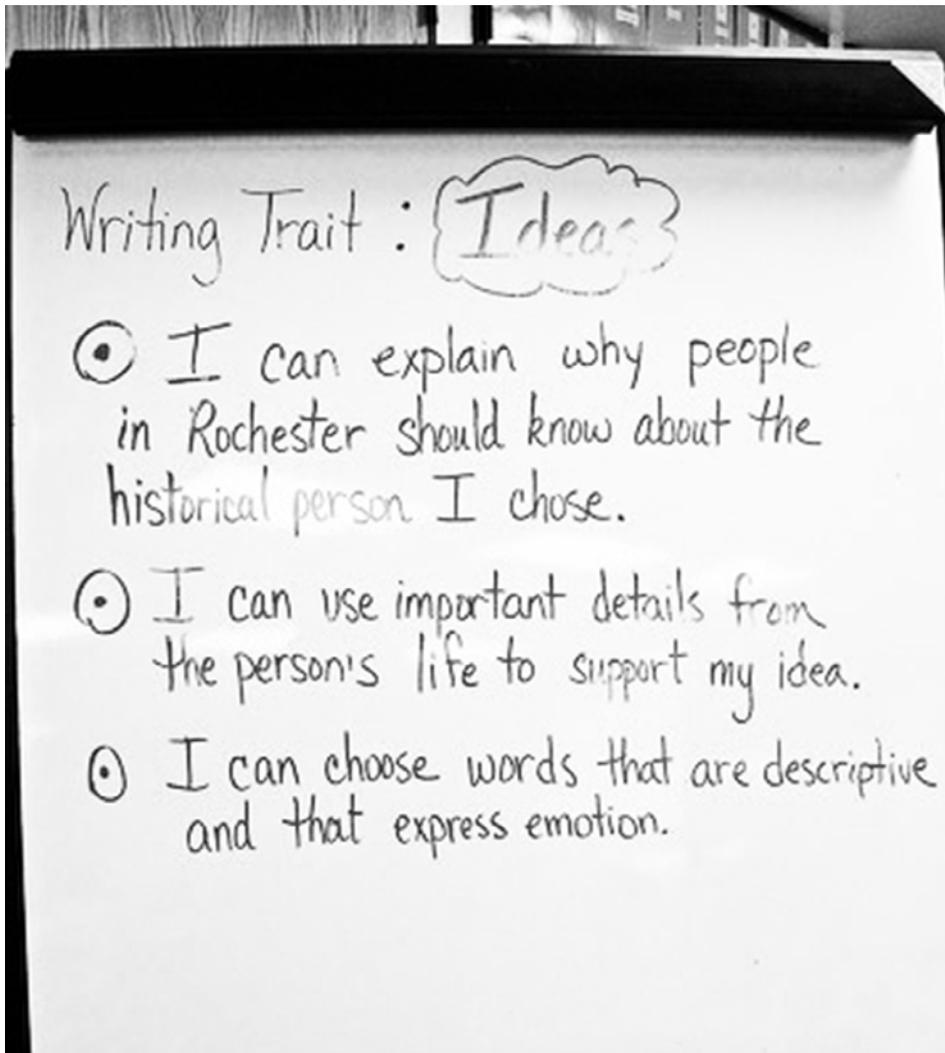
Choose a Standards-Based Lesson with Which to Get Started

Learning targets are derived from a number of sources—from Common Core, state, or local standards, school-developed habits of scholarship, or content area program materials. Some teachers work in schools where they have the autonomy to choose which standards they will address during a given time frame. Some work in schools where curriculum maps have already been developed by school-based leadership teams. Still others work in schools where curriculum decisions are made at the district level. In any case, teachers can employ learning targets in their classrooms to engage students in tracking their learning. When first getting started with learning targets, teachers should choose a lesson that meets required standards, that can be completed in one session, and that can be assessed during that time frame.

Write Learning Targets for the Lesson

It makes good sense to start small. After choosing a lesson, translate the objectives for that lesson into manageable, assessable, and student-friendly learning targets. It is important not to try to cover too much ground with the learning targets, especially when just getting started writing them. It may not be wise, for example, for a second-grade teacher to attempt to create her first learning targets for a daily lesson for the entire Common Core State Standard W.2.1: *Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or*

These targets were derived from the fifth-grade Common Core writing standard, W.5.2: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.



section. It would be more reasonable for her to choose one manageable and assessable component of this standard for which to create learning targets. For example, the teacher may decide that the most important place to start is for students to learn to form an opinion of a story they have read, supported by evidence. She

may choose, “I can develop an opinion about my story,” followed by, “I can craft one sentence that describes my opinion of my story,” followed by, “I can support my opinion with one example from my story.” A well-designed lesson that identifies the learning target, builds students’ skills in forming opinions and citing evidence, and checks for their progress along the way and at the conclusion has a high likelihood of seeing most, if not all, students meeting the learning target during the lesson. For a teacher just getting started with learning targets, determining feasible and assessable lessons for which to build learning targets is an important foundation.

It is also critical that students are able to assess their progress during and at the conclusion of a lesson. This is a key component of student-engaged assessment. If the learning target in a ninth-grade English class is, “I can write a haiku poem that creates a vivid picture,” there should be time for students to assess their poem against established criteria for vivid language at the end of the lesson. If instead they turn it in to the teacher on their way out the door and do not return to it the next day, there is limited opportunity to engage students in assessing their own progress and making plans for improvement. The student-engaged part of the assessment is lost.

A common mistake that many teachers make when learning to write quality learning targets is writing a learning target that describes the task rather than the learning. For example, to say “I can make a poster about the ideal habitat of a polar bear” is much different than “I can describe the ideal habitat for a polar bear in a poster format.” The emphasis in the first learning target is on making the poster. In the second, the emphasis is on learning about polar bear habitats. Though there is a time and a place for learning targets on craftsmanship and quality work, teachers must be clear about the learning they wish to assess. For more examples of common mistakes and pitfalls, see the “Common Challenges” section at the end of this chapter.

Table 1.1 contains examples of daily learning targets that are derived from standards and then contextualized in light of the specific curriculum content. For example, the learning target “I can describe historical events that affected the Sacco and Vanzetti case using a primary source text” links to the Common Core reading standard, RI.9–10.8: *Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.*

Table 1.1 Examples of Daily Learning Targets

Learning Targets for Younger Students	Learning Targets for Older Students
<ul style="list-style-type: none">• I can describe the differences between living and nonliving things.• I can explain my reasons for sorting and classifying insects.• I can find words I want to use in books, word walls, and word cards.• I can write words that send a message.	<ul style="list-style-type: none">• I can show two variable data on a scatter plot.• I can describe how photosynthesis and cellular respiration help an ecosystem maintain homeostasis.• I can describe historical events that affected the Sacco and Vanzetti case using a primary source text.

Using Learning Targets

Introduce the Learning Target(s) to Students at the Best Point in the Lesson

In most lessons, the learning targets are shared with students at the start of the lesson and then referred to throughout as teachers and students assess progress. Some teachers have students read the targets aloud, restate them to a classmate, or discuss them in small groups or as a class to ensure that they understand what they are aiming for. As students become more sophisticated with using learning targets, they may wish to critique or revise them. Teachers can choose to collaborate with students in revising them to be more clear, compelling, or measurable, and even in creating new learning targets. The process of sharing and discussing learning targets provides meaningful learning opportunities, especially for building key vocabulary. For example, in the accompanying video, we see Jon Exall’s sixth-graders at the Odyssey School spend several minutes grappling with the term *primary source documents* before they start working toward the learning target “I can use primary source documents to develop introductory understanding and introductory research questions for our first immigration case study.”



Watch video: “Students Unpack a Learning Target and Discuss Academic Vocabulary”

For some lessons, it is better to hold off on sharing learning targets with students until partway through the lesson. For lessons that open by engaging students with a mystery text—a provocative piece that stimulates interest and generates questions—or by enabling students to grapple with a new math concept or

experiment with scientific or artistic materials, it may be best to delay revealing the learning targets so that students will not be constrained in their thinking or discoveries. After discussing the ideas that emerge, the learning targets can be introduced to frame the next steps of work.



Case Study

Finding the Right Time to Introduce a Daily Learning Target in an Algebra II Class at the Springfield Renaissance School in Springfield, Massachusetts

Just as they do every day, students in Hilary Ducharme's eleventh-grade algebra II class come into the room and get right to work grappling with new problems, which are written on the board. Today Ducharme has asked her students to FOIL a series of problems, multiplying terms within parentheses in a particular order (first, outer, inner, last). A quiet hum settles on the room. Students are working together in groups while Ducharme walks around taking attendance and checking in with individual students. As students finish, several of them walk to the board and write their solutions.

Students pull out their homework, a problem set with one of four long-term learning targets for the semester written at the top: "I can construct quadratic models to solve problems." Below that is the supporting learning target that Ducharme introduced to students the previous day: "I can find the zeroes of a quadratic function by completing the square." Students complete a reflection form about what was easy and challenging for them about the homework and then they check their "complete the square" solutions using the quadratic formula. This leads into a lively classwide debate about the pros and cons of using "complete the square" versus the quadratic formula. "I like to have them take a stand like that," Ducharme says. "It increases their engagement. Suddenly they are speaking passionately about quadratic models!"

It isn't until about thirty-five minutes into the class that Ducharme points out the new daily learning target to the students: "I can identify and factor a difference of two squares." She brings them back to the FOIL problems they had done in the first ten minutes of class. As they explore the patterns in the solutions, awareness begins to dawn on the students. They see that their solutions to those problems have put them well on their way to the conceptual understanding they need to meet the new learning target.

Ducharme is strategic about when she introduces students to the daily learning target. She doesn't think it's a good use of time to introduce the learning target before her students have had a chance to do some grappling on their own. She says, "It will be meaningless to them unless they've had some experience with it." In this case, Ducharme knew that the students should be able to see the patterns based on the rules

they have already learned about quadratics. “This is the fourth year I’ve taught these learning targets,” Ducharme says, “and by now I’ve had enough experience to know how to build students to those ‘aha’ moments.”

Develop Techniques to Check for Student Understanding

In order for students to assess their progress toward meeting their learning targets, teachers must build in checkpoints along the way. For example, in the accompanying video Jason Shiroff employs several checking-for-understanding techniques as he probes his fourth- and fifth-graders’ understanding of transition phrases while unpacking a learning target with them.



Watch video: “Students Unpack a Learning Target”

Even well-written learning targets will contribute little to engaging, supporting, and holding students accountable for their learning if they are not referred to and used actively during the lesson. In addition to frequent checks throughout a lesson, the end of a lesson is also an important moment for checking for understanding. A well-constructed debrief will enable students to reflect on their learning, returning to the day’s learning targets to assess their progress.

There are a wide variety of techniques to check for student understanding and progress toward learning targets during the course of a lesson and at its conclusion. Among the possible strategies are the following:

- Hand signals (e.g., fist-to-five; thumbs up, down, or sideways; high, middle, or low)
- Written checks (e.g., whiteboards, exit tickets, guided practice)
- Verbal checks (e.g., cold-call questions, class go-arounds)
- Progress charts (e.g., students posting sticky notes, dots, checks, or initials)
- Peer check-ins (e.g., pair-shares, peer critique, small-group check-ins)
- Quick quizzes, written or verbal
- “Clicker” technology (e.g., computer-projected responses from all students)

See chapter 2 for more extensive discussion of these techniques.

Building in checkpoints along the way ensures that students understand the material and gives the teacher the opportunity to address learning gaps.



IN PRACTICE

Using Learning Targets over the Long Term

There are many layers to learning targets. Writing and using discrete learning targets for daily lessons is the first step in gaining facility with the practice. Employing learning targets for longer-term goals takes this work one step further, requiring that teachers consider the more sophisticated features of the practice:

- Prioritizing and contextualizing Common Core, state, and local standards
- Using long-term and supporting learning targets
- Integrating character learning targets
- Considering the rigor of learning targets
- Aligning standards, targets, and assessments

Prioritizing and Contextualizing Common Core, State, and Local Standards

It is one thing to transform the objectives for a lesson into learning targets, and quite another to do this work for all of the standards for a long-term project, unit, or course. Schools can prioritize standards by identifying the big ideas and enduring understandings they want students to master, and distinguishing between what's critical to know and be able to do and what's worth being familiar with. A schoolwide standards-based curriculum map is a solid foundation for planning and instruction and an invaluable tool for teachers. If a school does not have a curriculum map in place, teaching teams should work together to identify the standards that address the big ideas that are compelling and important for students and that can be reasonably addressed during the course of a project, unit, or course.

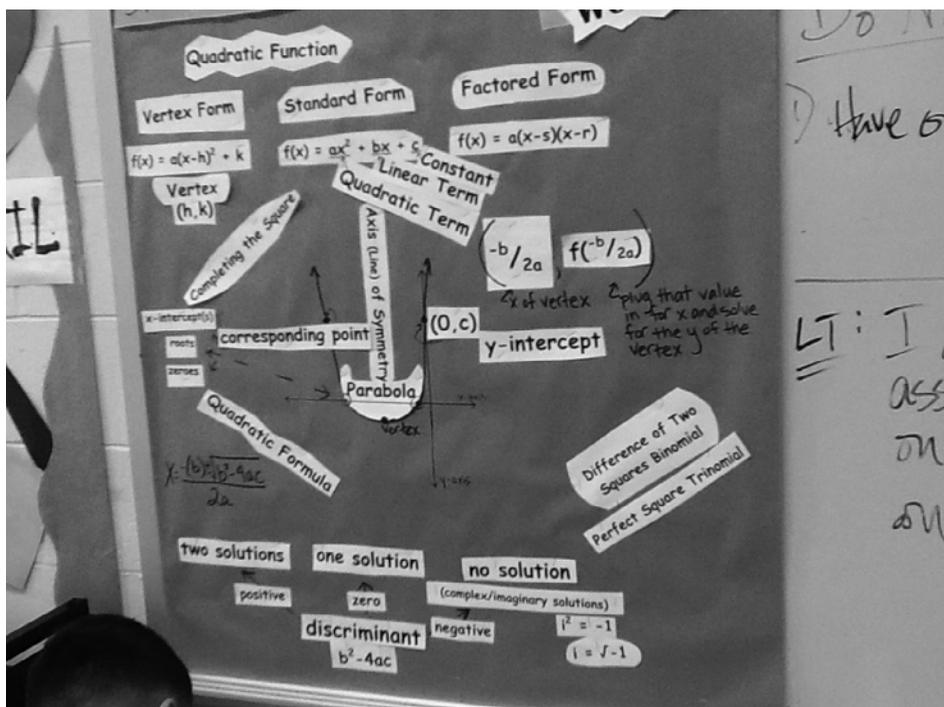
“I know I understand the learning target when I feel the confidence to say ‘I can.’”

—*Eighth-grade student,
Odyssey School, Denver*

Strategy Close Up: Using a Learning Target Concept Map

Hilary Ducharme uses vocabulary concept maps as visual representations of the learning targets for any given unit in her algebra II class at the Springfield Renaissance School in Springfield, Massachusetts. She creates the concept maps when introducing new long-term learning targets to her students as a way to foreshadow the learning. She and the students refer to the maps frequently as new learning targets, with new vocabulary, are introduced over days and weeks. Ducharme is careful that the visual arrangement of the vocabulary words also gives students information about their meaning. When students are reviewing for summative assessments, the words are a map of their learning throughout the unit. Ducharme finds the concept maps especially helpful for visual learners or students with Individual Education Plans (IEPs) who may need the extra support that the visual provides (see the vocabulary concept map).

This vocabulary concept map highlights the key vocabulary and learning targets for a unit on quadratic models.



In the schools where our examples and stories are drawn from, the primary unit of study is the learning expedition. Learning expeditions are based on case studies that give broad topics a specific—often local—context. The specific context enables teachers to translate required standards on broad topics into learning targets that are meaningful to students in the context of a locally specific case study. Students are more likely to be engaged in protecting the river that runs through their neighborhood than they are in river ecosystems in general. In a school that does not have a curricular structure such as learning expeditions, choosing a locally relevant case study through which to study academic content makes the curriculum more compelling for students and increases engagement.

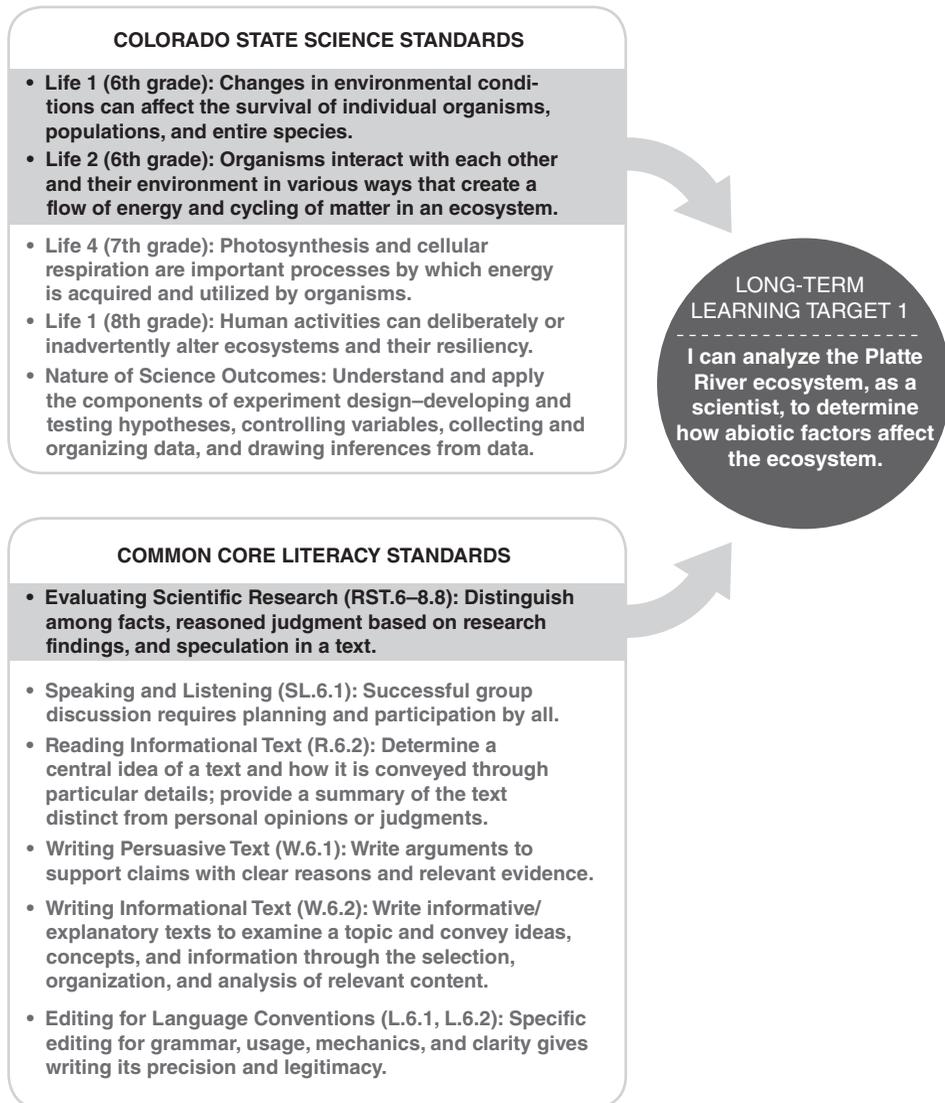
Learning expeditions are interdisciplinary studies, usually lasting six to twelve weeks, led by a teacher or teaching team. Learning expeditions are based on state and Common Core standards, aligned with local curriculum maps, and focused on essential content and skills. Each learning expedition includes guiding questions, kickoff experiences, case studies, projects, lessons, fieldwork, experts, service learning, and a culminating event that features high-quality student work.

To illustrate the prioritization and contextualization process, consider the “We All Live Downstream” learning expedition from the sixth grade at the Odyssey School. Students spent approximately three months studying Colorado’s endangered Platte River. Using the school’s curriculum map as a guide, instructional guide Liza Eaton worked with teachers to identify the key state science standards and Common Core literacy standards that they would address during the course of the learning expedition.

From there, they prioritized the most salient standards that would offer opportunities for depth and a compelling local context, and wrote long-term learning targets that guided the students throughout the expedition. They paid careful attention to a sequence of learning targets that would address the standards. For example, reading standards were drawn on more in the beginning of the learning expedition as students built background knowledge about the Platte River and river ecosystems. Writing standards entered the process more toward the end, as students prepared to present their experimental findings.

Figure 1.1 illustrates how two state science standards and one Common Core literacy standard were combined to form long-term learning target 1, one of several long-term learning targets for the learning expedition.

Figure 1.1 Prioritizing and Contextualizing Standards into Long-Term Learning Target 1 for the “We All Live Downstream” Learning Expedition



Using Long-Term and Supporting Learning Targets

Supporting learning targets are the building blocks for meeting long-term learning targets. They nest inside long-term learning targets. There are no rules about the number of supporting learning targets, but it is common for each long-term learning target to be supported by three to five supporting learning targets. Supporting learning targets are specific and easily measurable. They guide a teacher's daily lessons. At times a supporting learning target will need to be broken into even more specific daily learning targets. Alternatively, often the same supporting learning target, such as, "I can ask questions and develop testable hypotheses," will take a series of classes to address.

Long-term and supporting learning targets should never be developed by tacking "I can" onto the beginning of a Common Core or state standard. Learning targets may address just a small part of a standard or span multiple standards. The language of the learning target must make things clear to students, and standards are rarely written with this goal in mind. For example, a first-grade teacher can translate a state social studies standard that reads *Students understand the monetary value of standard U.S. coinage* into two sequential learning targets that students can more easily understand: "I can make change for a quarter in many ways" and "I can make change for a dollar in many ways."

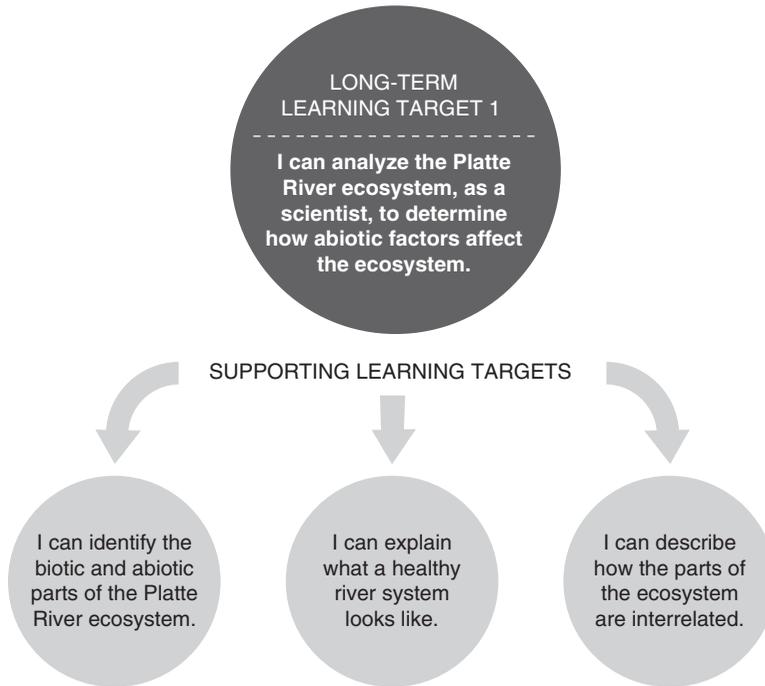
Continuing with the "We All Live Downstream" learning expedition, we see a good example of creating supporting learning targets to guide the daily work of meeting long-term learning targets that address multiple standards. Figure 1.2 illustrates how this long-term learning target was further broken down into three supporting learning targets.

Integrating Character Learning Targets

Character learning targets are based on schoolwide expectations for habits of scholarship and norms for social behavior. If a school hasn't already identified the habits of scholarship that guide student learning—often called a *code of character*—a review of the school's mission statement can be a helpful starting place to identify character learning targets.

Table 1.2 contains the character learning targets for the sixth, seventh, and eighth grades at the Odyssey School, which guide students throughout the year. Not every character learning target can be addressed during a unit or learning expedition. It is up to the teacher(s) to select two or three key character learning

Figure 1.2 Long-Term Learning Target 1 and Supporting Learning Targets for the “We All Live Downstream” Learning Expedition



targets that are a best fit for the content or the needs of the class. For the “We All Live Downstream” learning expedition, students focused on one character learning target that addressed chronic editing errors in their written work and two that were a good fit for the collaborative lab work and fieldwork involved with their study of the Platte River ecosystem:

- *Revision*: I can use one or more effective tools or strategies to eliminate all editing errors in my final draft.
- *Collaboration and leadership*: I can identify when my contribution improved the quality of our work.
- *Service and stewardship*: I can apply what I have learned in class by taking action to improve a situation in my community or in the broader world.

Table 1.2 Sample Sixth- to Eighth-Grade Character Learning Targets

<p>Responsibility I can begin to advocate for myself. I can maintain focus. I can complete quality work on time.</p>	<ul style="list-style-type: none"> • I can demonstrate consistent use of strategies (e.g., my own notes, participation in class, before- and after-school help sessions) to fully engage in my learning. • I can complete quality classwork on time. • I can act as an intentional up-stander (i.e., stand up for others).
<p>Revision I can use critical feedback to improve my work.</p>	<ul style="list-style-type: none"> • I can demonstrate how I know my final draft is my best work. • I can demonstrate a consistent use of revision strategies. • I can use one or more effective tools or strategies to eliminate all editing errors in my final draft.
<p>Inquiry I can use the practices, tools, and skills of an academic discipline to investigate, evaluate, form, and test theories. I can use those skills to understand specific situations and make sense of big ideas in that discipline.</p>	<ul style="list-style-type: none"> • I can develop deep, probing questions and theories based on initial research and background knowledge. • I can locate diverse and quality resources that help me answer my questions and deepen my understanding. • I can evaluate and synthesize the information and evidence I find. • I can report findings in a way that helps my audience access them.
<p>Perspective Taking I can consider multiple perspectives and their implications in terms of justice, freedom, and human rights.</p>	<ul style="list-style-type: none"> • I can make use of diverse opinions to help me make sense of the world. • I can use conversation to gain understanding of others' ideas and not just as a way to voice my ideas. • I can explain how my understanding of an issue has been altered or deepened after investigating an opposing viewpoint.
<p>Collaboration and Leadership I can engage positively with others to learn things and create work that is larger and deeper than I could create on my own.</p>	<ul style="list-style-type: none"> • I can identify when our work improved because of the contribution of a peer. • I can identify when my contribution improved the quality of our work. • I can implement leadership strategies and evaluate their effectiveness. • I can walk my talk by being a good role model.
<p>Service and Stewardship I am crew (for more on <i>crew</i>, see chapter 5). I can do things to care for my environment and my community. I can make connections between my actions and the global community.</p>	<ul style="list-style-type: none"> • I can make choices that result in leaving a positive trace in the environment (classroom, school, nature). • I can apply what I have learned in class by taking action to improve a situation in my community or in the broader world. • I can demonstrate care for my buddy.

The Common Core State Standards offer descriptions of students who meet the standards and are thus ready for college or career. The descriptions closely align with the habits of scholarship identified by the Odyssey School and many other schools described in this book. In fact, actively teaching these habits is what will enable students to become the students described by the Common Core: independent learners who are able to critique the reasoning of others, value inquiry and evidence, and persevere in solving problems.

Considering the Rigor of Learning Targets

Writing learning targets is an opportunity for teachers to ramp up the rigor in their classrooms. The framework of knowledge, skill, and reasoning as three types of learning targets is a helpful starting place for analyzing what teachers expect a student to understand and do (see table 1.3). All three types of learning targets are important. Through analyzing learning target type, teachers can make informed decisions about instructional sequencing and make good estimates about how much time students will need to reach proficiency with a target. For example, knowledge learning targets in geometry that require students to memorize definitions may be reached in a single lesson, whereas learning targets requiring students to apply geometric concepts to novel problems—using reasoning—may take several days. This analysis of learning target types also equips teachers to select effective assessments.

Table 1.3 Knowledge, Skills, and Reasoning Learning Targets

	Knowledge	Skill	Reasoning
Explanation	Knowledge, facts, concepts to be learned outright or retrieved using reference materials	Use of knowledge to perform an action; demonstration is emphasized	Thinking proficiencies—using knowledge to solve a problem, make a decision, plan, and so on
Sample verbs	Explain, describe, identify, tell, name, list, define, label, match, choose, recall, recognize, select	Observe, listen, perform, conduct, read, speak, write, assemble, operate, use, demonstrate, measure, model, collect, dramatize	Analyze, compare and contrast, synthesize, classify, infer, evaluate

Source: Stiggins, Rick J.; Arter, Judith A.; Chappuis, Jan; Chappuis, Steve, *Classroom Assessment for Student Learning: Doing It Right—Using It Well*, 1st Edition, © 2006, p. 64. Adapted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

However, just labeling learning targets as knowledge, skill, or reasoning can oversimplify the issue of rigor. Teachers need to also consider the complexity of students' tasks and assessments linked to learning targets. The cognitive rigor matrix in table 1.4) is a useful tool. Once teachers have learning targets and an associated task or assessment in mind, they are ready to use the matrix. The first step is to use Bloom's taxonomy to identify the type of thinking a task requires (e.g., remember, understand, apply, analyze, evaluate, create). Next, consider how deeply students need to understand the content and take into consideration how complex or abstract the content is.

Knowing where a task falls on the matrix can inform backward planning, helping teachers ensure that the learning targets will scaffold students' learning

Table 1.4 Cognitive Rigor Matrix with Sample Tasks

	Recall and Reproduction	Basic Application of Skills and Concepts	Strategic Thinking and Reasoning	Extended Thinking
Remember	Recall or locate basic facts, details, events.	N/A	N/A	N/A
Understand	Describe or explain who, what, where, when, or how.	Explain relationships, summarize, identify main ideas.	Explain, generalize, or connect ideas using supporting evidence.	Explain how concepts or ideas specifically relate to other content domains.
Apply	Use language structure or word relationships to determine meaning.	Obtain and interpret information using text features.	Apply a concept in a new context.	Select or devise an approach among many alternatives to research a novel problem.
Analyze	Identify whether information is contained in a graph, table, and so on.	Distinguish between relevant and irrelevant information.	Analyze interrelationships among concepts, issues, or problems.	Analyze complex or abstract themes or perspectives.
Evaluate	N/A	N/A	Justify or critique conclusions drawn.	Apply understanding in a novel way, with justification.
Create	Brainstorm ideas about a topic.	Generate hypotheses based on observations or prior knowledge.	Develop a complex model for a given situation.	Articulate a new voice, new knowledge, or perspective.

Source: Adapted from © 2009 Karin K. Hess: *Hess' Cognitive Rigor Matrix*.

appropriately. Using the matrix also pushes teachers to consider tasks that fall in the “Extended Thinking” column, emphasizing real-world application, cross-discipline connections, problem solving, and creative thinking—all important aspects of deeper learning through the Common Core.

Aligning Standards, Learning Targets, and Assessments

Learning targets inform a cycle of curriculum development, instruction, and assessment. Clear learning targets derived from state and Common Core standards can help teachers make decisions about what to teach and how to assess learning. Teachers should identify assessments for each set of long-term and supporting learning targets, taking care to select assessment methods that are appropriate for the type of learning target a student is working toward. For example, an extended written response may not be appropriate for a teacher to assess the learning target “I can collect specific accurate data in metric units.” A performance assessment, however, may be just right for this skills-oriented learning target. Table 1.5 shows possible assessments based on the type of learning target.

Table 1.5 Selecting Assessment Methods Based on Type of Learning Target

	Selected Response	Extended Written Response	Performance Assessment	Personal Communication
Knowledge	Good match —for assessing mastery of elements of knowledge	Good match —for evaluating understanding of relationships among elements of knowledge	Not a good match —too time consuming to cover everything	Match —can ask questions, evaluate answers, and infer mastery, but a time-consuming option
Skills	Not a good match —can assess mastery of prerequisite knowledge, but do not tell the evaluator that the student can use the skill itself		Good match —can observe and evaluate skills as they are being performed	Good match —when skill is oral communication proficiency
Reasoning	Match —only for assessing understanding of some patterns of reasoning	Good match —written descriptions of complex problem solutions provide a window into reasoning proficiency	Good match —can watch students solve some problems and infer reasoning proficiency	Good match —can ask students to think aloud or can ask follow-up questions to probe reasoning

Source: Stiggins, Rick J., *Student-Involved Assessment for Learning*, 4th Edition, © 2005. Adapted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

Critical Moves for Deepening Student Engagement

Writing good learning targets takes time and care, but it is only the beginning. The practice really gains traction when students internalize the value of learning targets and use them to assess their progress. In the accompanying video, seventh- and eighth-grade students at the Odyssey School discuss their classroom learning targets as a part of everyday life in their classrooms. As a result of using learning targets in every class every day, they have a strong sense of responsibility and accountability for their learning.



Watch video: “Students Discuss the Power of Learning Targets”

“As a professional, I am making a determination of what is most important and measuring student success based on a body of evidence. I design assessments that demonstrate mastery of content and collect evidence that helps me to determine whether or not the student has met the target. The evidence also points to where students may need additional support or extension. All the work along the way informs me about whether or not the students are understanding or may need reteaching or coaching.”

—Aurora Kushner, tenth-grade biology teacher, Springfield Renaissance School, Springfield, Massachusetts

If the teacher—and not the students—owns the learning targets, it doesn’t matter how well they are crafted and worded; they won’t have power. Students need to be drawn into analyzing and unpacking the learning targets, building a clear vision of where they need to go. If the learning targets do not create a clear and resonant goal for students, they may need to be fine-tuned or reworded collaboratively with students to make them plain. Once students are experienced with using learning targets, they and their teachers can collaboratively build learning targets that address standards and goals effectively. Although it may seem daunting at first, getting started with learning targets can be approached through a series of manageable activities. Table 1.6 describes the who, what, and why of using learning targets to increase student engagement.

Table 1.6 The Who, What, and Why of Learning Targets

What Do Teachers Do?	What Do Students Do?	What's the Result?
Craft learning targets for lessons aligned to state and Common Core standards. Determine the best point in a lesson to introduce the learning target—at the beginning of the lesson or later (to promote discovery or grappling with new concepts). Discuss and unpack the learning targets with students.	Engage with the learning target—explain it in their own words with a partner or small group; discuss specific vocabulary; ask clarifying questions; and explore how they will demonstrate that they've met the target.	Lessons have purpose and direction and students are more engaged. Students can articulate a clear vision of the learning.
Refer to learning targets throughout the lesson and align activities to support students in meeting them.	Articulate how each activity is helping them move closer to achieving the learning target.	Students are engaged in the lesson because the purpose of their work is clear.
Check for whole-class understanding.	Self-assess where they are in relation to a specific learning target using quick checks, such as fist-to-five. Support other students in assessing and meeting learning targets.	Teachers and students can make informed decisions about next instructional moves (e.g., offering or attending an additional guided-practice session before moving into independent practice).
Check for individual understanding and use data to make decisions about next instructional steps.	Turn in written checks for understanding (e.g., exit tickets, reflection journals, quick quizzes) that demonstrate where they are in relation to one or more learning targets.	Teachers can make informed decisions about next instructional steps related to individual students (e.g., oral or written feedback, differentiated materials, and instruction in the next lesson).
Connect daily and supporting learning targets to long-term learning targets and engage students in understanding the state and Common Core standards they are working toward.	Understand how daily lessons will help them meet long-term learning targets. Support peers in understanding the learning targets and standards.	Students can see how daily lessons are part of a larger plan to meet standards.
Institute use of learning target trackers.	Track and record their progress toward long-term and supporting learning targets and make an effort to understand what they need to do to improve.	Teachers and students can see more progress toward standards. They recognize gaps in understanding and take steps to address them.

Table 1.6 Continued

What Do Teachers Do?	What Do Students Do?	What's the Result?
Integrate character learning targets and academic learning targets.	Understand how the habits and skills embedded in character learning targets support academic progress.	Academic and character growth are linked.
Ensure the rigor of learning targets with a balance of knowledge, reasoning, and skills targets and attention to the complexity of tasks and assessments.	Develop a range of capacities, from skill building to higher-order thinking.	Students are appropriately challenged by the right kinds of learning targets at the right time.
Align standards, learning targets, and assessments. Create the summative assessments that will evaluate whether students have met the targets.	Understand how they will be assessed from the beginning of a learning experience. Prepare to do their best in meeting the targets.	Learning targets aligned with formative and summative assessments enable effective communication about what students are learning.

SCHOOLWIDE IMPLEMENTATION

The practice of using learning targets is a foundation for all student-engaged assessment practices and a vehicle for deepening teaching and learning across a school. It takes skillful and collaborative leadership to facilitate probing discussions, examine data, decide on content and priorities, and build the key structures that support the full implementation of learning targets. It will take time for teachers to develop consistently strong learning targets that are at the right level of cognitive demand for students, that are aligned to standards and assessments, and that are actively used by students. Leaders can offer support with professional development and good communication.

Learning targets have the potential to tie into almost every important school structure: student-led conferences, passage presentations, standards-based report cards, celebrations of learning, graduation ceremonies, professional development plans, and school improvement plans. The more they are used throughout a school, the more power they will have. We have highlighted some of the key leadership actions that will support smooth implementation of learning targets throughout a school.

Lay the Groundwork

- Use professional literature and professional development to train staff on the benefits of learning targets to engage students in making progress toward standards.

- Analyze state and Common Core standards in faculty teams. Understanding the standards deeply is a prerequisite for developing curriculum maps with accompanying learning targets.
- Work with the school leadership team to create curriculum maps across all grades and content areas, clarifying what standards are assessed at each grade level. Collaborate with and seek input from teachers.
- Create schoolwide habits of scholarship and clarify appropriate character learning targets for each grade level. Determine how progress toward these targets will be tracked and communicated in a way that supports, engages, and holds all students accountable.

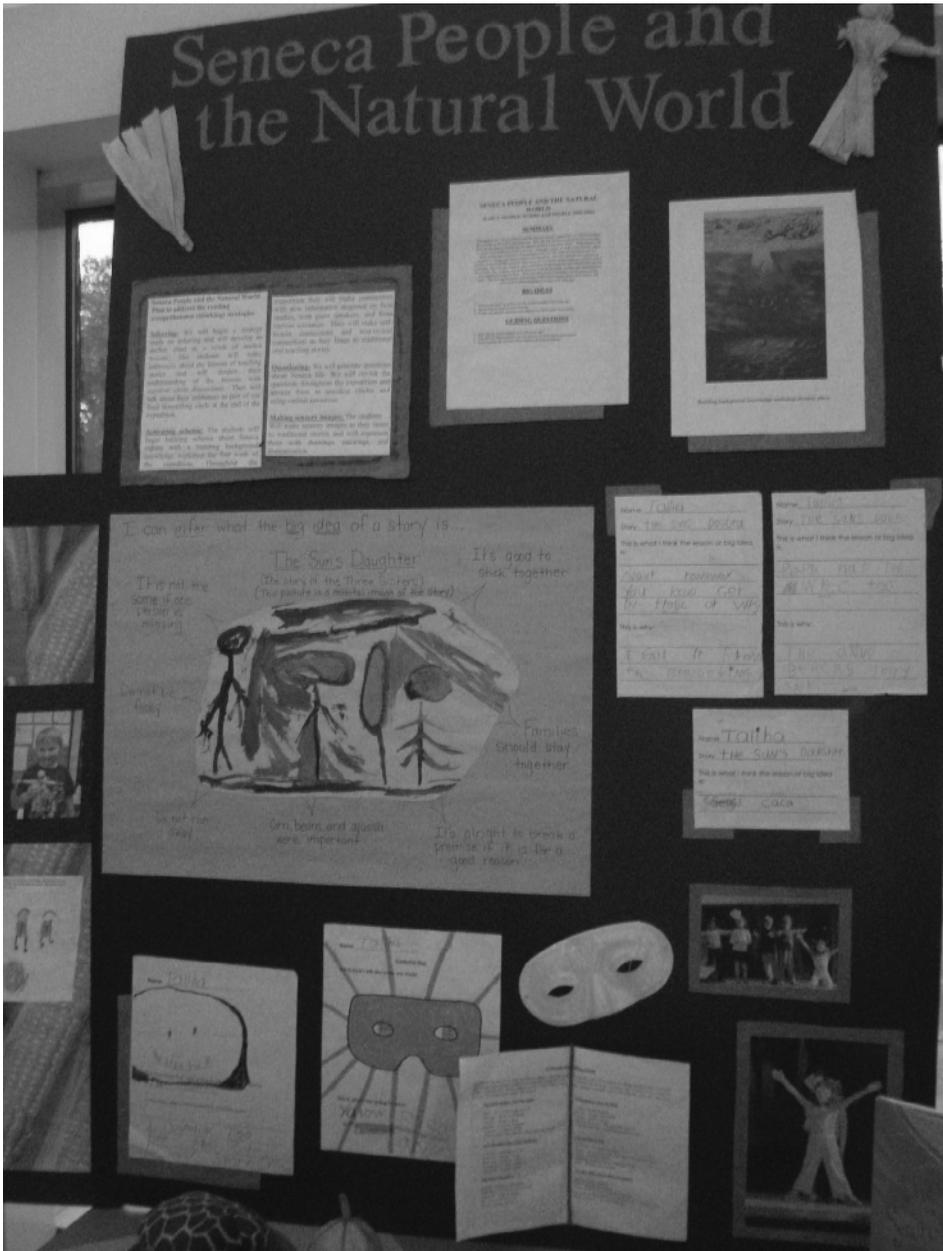
Build Teacher Capacity

- Create a long-range professional development plan that engages staff in examining their practice writing and using learning targets.
- Ensure that teachers have time and support, through ongoing professional development structures, to craft long-term and supporting learning targets from standards and match assessments to learning targets before each chunk of instruction begins.
- Model learning targets in the professional working culture of the school (e.g., professional development sessions).

Communicate with Stakeholders

- Establish the schoolwide practices that ensure that learning targets are communicated and understood by everyone. This encompasses small, daily practices such as posting learning targets and discussing them at the beginning of a class, as well as larger schoolwide practices such as aligning grades and report cards with learning targets.
- Communicate with parents about what learning targets are and where they can expect to see them (e.g., on assignments or report cards, at student-led conferences).
- Exhibit students' work and explicitly link this work to learning targets. Label work so that family and community members walking through the school understand what is on display and what learning targets were met. Work can be accompanied by rubrics to explain the criteria for the product.

Well-organized displays illustrate the progression of student work over time, leading to work that clearly demonstrates mastery of learning targets.



Support Teachers to Deepen Their Practice

- Collaboratively critique assessments during professional development and provide feedback to ensure that learning targets drive instruction and act as the framework for assessments.
- Provide time for diary mapping—retrospectively documenting what content and skills teachers actually assessed. Content and skills maps require refinement once they are created, and diary mapping provides a reality check against the ideal. The process also enables teachers and leaders to analyze assessment data from state tests, cross-referencing achievement with what was emphasized at the classroom level.
- Observe and discuss teacher and student use of learning targets by analyzing student work and video clips during professional development or holding school-based classroom labs.



Case Study

Getting Results with Learning Targets at the Odyssey School in Denver

When staff at the Odyssey School began their work on assessment several years ago, they thought it was going to be a yearlong focus. They quickly realized that assessment needed to be a multiyear focus. For Liza Eaton, teacher and instructional guide, a key turning point was when she realized the power of student involvement in the process. “I started realizing it wasn’t just about me and my planning. I had been writing the targets on the board, but we weren’t necessarily using them. Then I developed a self-assessment tool and in using it, kids started to understand where they were in relation to the target.” As the process of using learning targets with students expanded, the school began to see achievement results. “That year our state test scores went up a ton, and they stayed up. Suddenly we realized the power of our assessment work. Not just through what we saw in our classrooms, but in numbers.”

At Odyssey, getting the structures established took some time and has been central to their progress. There is schoolwide professional development from 1:45 to 4:00 every Friday, during which the staff focuses on a schoolwide goal and topics that support that goal (e.g., how to make a good standard-target-assessment plan and how to support students in self-reflecting with accuracy). A newer structure supports teachers with an hour of instructional coaching every week, and schoolwide labs create opportunities for peer observation with a particular instructional focus. It’s clear that refining their

assessment practices has been a professional learning journey with twists and turns. As Eaton says, "From the outset it seems easy and linear, but then you get into it and discover it's messy and hard. If the students are not getting to the target, and that's a pattern, then you have to teach differently. On the other hand, there are immediate results that you see in your classroom."

WHAT TO EXPECT

This book on student-engaged assessment begins with the practice of learning targets because this is an essential first step in making students full partners in their own education. Mastering the practice is an act of translation. As anyone who has been a translator understands, the act of translation is no mere job of substituting one word for another. Effective translation requires a deep understanding of the original idea, including its nuances and contexts. A translator must have a firm foot in two worlds. A teacher who writes effective learning targets is such a translator, with deep knowledge of the standards *and* with the ability to identify how to express them in just the right terms for his or her students.

This is a paradigm shift. For teachers new to writing and using learning targets this practice requires that they frame lessons, units, and semesters by what students will learn, rather than by what teachers will teach. For many teachers, this represents a different way of thinking about the enterprise of teaching and about the learning that goes on in the classroom. Many teachers may not be familiar with the role of a translator.

Writing and using learning targets usually starts at the classroom level. Teachers experiment with designing learning targets to guide daily lessons, paying attention to word choice. Teachers will discover, through trial and error, how to best translate standards and curriculum into meaningful learning targets for their students. They will witness the power of learning targets to engage students in their own learning, and will look for ways to expand their use in the classroom. They will understand the value of learning targets as road markers for their curriculum. Ultimately, teachers will translate state and Common Core standards into long-term learning targets and nest supporting learning targets within them. Even more important, through the consistent practice of understanding, meeting, and reflecting on learning goals, students will have developed habits of scholarship associated with school success. As teachers

gain comfort with this practice, they can use learning targets to help their students develop the skills, work habits, and character traits needed for success in school and beyond.

Once school leaders and teachers gain experience with and see the benefits of learning targets, their use will likely spread throughout the school. Students benefit from this kind of consistent and predictable framing of learning throughout their school experience. It is empowering for them to understand where they are headed and what they are expected to learn in every classroom, every day.

We have identified some of the benchmarks that teachers and school leaders can expect at the beginning, intermediate, and advanced phases of implementing learning targets.

Beginning

- Teachers write learning targets for daily lessons.
- Learning targets are visibly posted in the classroom and introduced to students at the best point during the lesson—teachers unpack the learning target, identifying key vocabulary and criteria for success.
- Teachers plan their instruction to ensure that all students can meet the learning targets.
- Students are able to articulate what they are learning.
- Families have more information about what concepts and skills their children are learning.

Intermediate

- Faculty members have rich conversations about state and Common Core standards and what learning targets will help students demonstrate proficiency on standards.
- Long-term learning targets frame curriculum units, and supporting learning targets guide daily lessons.
- Students come to expect learning targets to guide their lessons and long-term units of study. They are invested in analyzing and understanding them.

- Teachers create effective plans that align standards, targets, and assessments. Learning targets are clearly derived from standards, and assessment methods match learning target types.
- Teachers use checking-for-understanding strategies to monitor students' progress toward learning targets.
- Character learning targets are used to assess habits of scholarship.
- Teachers balance knowledge, reasoning, and skills learning targets.
- Students can articulate to their families what they are learning and what they need to do to make progress.

Advanced

- Students adeptly track their progress and make decisions alongside the teacher about next steps. They own the learning and the assessment process. They are invested in understanding standards and modifying or creating new learning targets to best help them meet them.
- Teachers assess students on long-term and character learning targets within a schoolwide standards-based grading system.
- Teachers write learning targets attending to the cognitive rigor of the intended student learning.
- Parents, students, and teachers have detailed conversations—referencing character and academic learning targets—about students' strengths and areas for improvement. Students often lead these conversations in student-led conferences.
- Teachers and schools continually align standards, learning targets, and assessments.

COMMON CHALLENGES

Learning Targets That Are Owned by the Teacher, but Not by the Students

Build student ownership. Many teachers succeed in creating and posting learning targets; some schools even require this practice. But posting learning targets and reading them aloud are not enough. Teachers and students should discuss the

learning targets to ensure that students fully embrace and understand them and can collaborate with the teacher in tracking them.

Learning Targets versus Doing Targets

Focus on learning. As mentioned previously, learning targets should describe what students will learn as a result of a lesson, learning expedition, or unit of study, not what they will do as the task—“I can use metaphor to convey a complex emotion,” not “I can complete or fill out my note catcher.”

Learning Targets That Are Too Complex

Watch your language. Aim for clarity when crafting learning targets. Those that pack in too much information may confuse students or make a teacher second-guess the intended learning and assessment. Watch out for learning targets that contain the following: two verbs (e.g., “I can identify and analyze”); compound content (e.g., “I can describe the ecosystems of coral reefs and forests”); broad scope of content (e.g., “I can evaluate continuity and change over the course of US history”).

Learning Targets That Are Too Big or Too Small

Get the scope right. Often it can be challenging to create long-term and supporting learning targets that efficiently pace life in the classroom and stimulate rich learning. Long-term learning targets should be tied directly to standards, and each may take one to two weeks to address completely. Nested within each long-term learning target, supporting learning targets (typically three to five) guide the daily lessons that support students to meet standards. Careful planning and practice will help teachers craft learning targets that don't try to cover too much or that are overly narrow.

Learning Targets That Are Not Used on a Daily Basis

Use it or lose it. Learning targets must be displayed, referred to, owned by the students, and worked toward in a meaningful way. Learning targets that exist only on paper don't support students' engagement, motivation, and learning.

Learning Targets That Require All Lower-Level Thinking and Skills

Mix it up. Learning targets should reflect different levels of thinking, from the foundational knowledge level (e.g., name, identify, describe) to higher-order skills

(e.g., analyze, compare and contrast, and evaluate). Check to see that sets of learning targets ramp up the rigor in the classroom.

Learning Targets That Are Not Linked to a Powerful Context for Learning

Make them meaningful. Learning targets are most powerful when they guide learning experiences that are engaging for students and are part of a compelling curriculum that requires critical thinking and problem solving.

Learning Targets That Are Mismatched to Assessments

Check the alignment. The method of assessment should match the learning target. A target that asks a student to analyze would be assessed not with a multiple-choice quiz, but rather with a written response or verbal teacher-student conference. Well-matched assessments are both effective and efficient.

Learning Targets That Miss the Heart of the Common Core State Standards

Get to the heart of the matter. If learning targets and assessments touch on standards but don't address them fully, sharply, and deeply, teachers will miss an opportunity to help their students develop the critical thinking skills emphasized by the Common Core State Standards. Teachers must read and discuss the standards carefully to create effective learning targets.

Learning Targets That Are Different for Different Groups of Students

Ensure rigor and equity. Learning targets should remain consistent for all students, whereas the instruction employed to help students meet them is differentiated to meet the needs of a diverse range of learners (with the possible exception of students working toward an IEP-based diploma that calls for curriculum modifications or for those participating in other alternative pathways).

