

NextGen TIME: Prepare Phase

Implementing the NGSS, at least in part—through the analysis, selection, and use of instructional materials—is a major undertaking. Many educators “hope” that the new materials would magically transform teaching and learning in ways consistent with the NGSS. Yet the reality of the complexities and design of the NGSS requires thoughtful and purposeful planning that enables districts to move from novice to expert in providing quality science education for all students.

The good news is that by conducting the five phases of the **NextGen TIME** tools and processes, districts will collect data that serve to inform the selection of materials and the implementation plan. Fodder for the implementation plan is provided by the lessons learned in building a team, data from the strengths and limitations gathered through the Paperscreen Phase and analyzing student work and teacher support from the Pilot Phase.

Who should be involved in the Prepare Phase? We recommend a team of leaders made up of a variety of stakeholders. Different points of view, while sometimes a challenge to balance, allow for buy in and credibility. An important side effect of this strategy is that more people in a wider range of roles are aware of the plan and can support it in a variety of ways.

What tools are available? Many tools and processes are available to help a district prepare for the selection process. If the district has its own tools and they align with the shifts required by instructional materials designed for the NGSS, then use those.

NextGen TIME recommends the use of a tool called the **Practice Profile**. The Practice Profile has been used for years by the K-12 Alliance and BSCS in work with districts. It is presented here because of its (1) adaptability to align with implementing high quality science instructional materials, (2) support for helping stakeholders develop a shared vision for key aspects of implementing instructional materials, and (3) support for helping stakeholders determine the current state of key indicators for the effective use of high quality instructional materials.

A Practice Profile is just that—a profile of key practices focused on a particular innovation. In the two profiles provided, the innovation is the enactment of instructional materials designed for the NGSS, and key practices are described for districts and for teachers. Each profile identifies key components in column 1 and then describes a range of practices—expert, accomplished, novice, and not evident. To use the profiles, we encourage you to take the following steps:

1. Brainstorm with your team the key components for districts and for teachers to enact instructional materials designed for the NGSS. The team is likely to identify at least some of the components offered here.
2. Identify a few components to describe “at an expert level”. These may be the components you first study on the Practice Profiles provided here.
3. Review one profile at a time as fodder for a discussion of the current state of district support for and teacher enactment of the NGSS through the use of instructional materials designed for the NGSS.
4. Use the results of this conversation to determine what additional resources or professional learning would be helpful in preparing for **NextGen TIME**.

Figure 1 is a Practice Profile focused on district support for instructional materials designed for the NGSS. Figure 2 is a Practice Profile focused on teacher enactment of the NGSS through instructional materials.

Practice Profile: **District Support for the Enactment of Instructional Materials Designed for the NGSS (Figure 1)**

Component	Expert	Accomplished	Novice	Not Evident
Professional Learning Plan for Instructional Materials Implementation	District enacts a multi-year plan for professional learning related to instructional materials implementation that is monitored, equitable, and focused on collaboration among stakeholders.	District develops a multi-year plan for professional learning related to instructional materials implementation that is monitored, equitable, and focused on collaboration among stakeholders.	District has a short-term plan for professional learning, but the plan may lack monitoring, equity, and/or collaboration among stakeholders.	District offers limited support for professional learning.
Leadership Development <ul style="list-style-type: none"> ▪ Central Office ▪ Site Administrators ▪ Teacher Leaders 	District enacts a multi-year plan for leadership development that is monitored, equitable, and focused on a common vision for the NGSS among stakeholders, i.e., central office personnel, site administrators, and teacher leaders.	District develops a multi-year plan for leadership development that is monitored, equitable, and focused on a common vision for the NGSS among stakeholders, i.e., central office personnel, site administrators, and teacher leaders.	District has a short-term plan for leadership development, but the plan may lack monitoring, equity, and/or a common vision for the NGSS among stakeholders.	District lacks a vision and plan to support leadership development.
District Policies and Practices	District policies and practices fully support the selection and implementation of science instructional materials and are commensurate with other content areas, i.e., math and English Language Arts	District policies and practices somewhat support the selection and implementation of science instructional materials.	District policies and practices to support the selection and implementation of science instructional materials are inconsistent.	District policies and practices are absent to support the selection and implementation of science instructional materials.
Materials Management	District supports a fully operational materials management system to provide and replenish resources, i.e., science/engineering equipment, text resources, and technology, to ensure that teachers have what they need to effectively use the instructional materials with all their students.	District supports a materials management distribution system to provide resources, i.e., science/engineering equipment, text resources, and technology, to ensure that teachers have what they need to effectively use the instructional materials with all their students.	District supports a materials management distribution system to provide resources, i.e., science/engineering equipment, text resources, and technology.	District does not support a materials management distribution system.

Practice Profile: **Teacher Readiness for Enactment of Instructional Materials Designed for the NGSS (Figure 2)**

Component	Expert	Experienced	Novice	Not Evident
Instructional Materials	Teachers use systematically evaluated and selected instructional materials designed for the NGSS.	Teachers actively seek lessons, units, and/or programs designed for the NGSS, critically evaluate their quality, and use them in their classrooms.	Teachers “hunt and gather” or develop lessons to help them enact three-dimensional, phenomena/problem-driven experiences.	Teachers use traditional kinds of instructional materials in their classrooms.
Instructional Practices	Teachers frequently implement three-dimensional, phenomena/problem-driven instructional practices as exemplified in the NGSS.	Teachers sometimes implement three-dimensional, phenomena/problem-driven instructional practices as exemplified in the NGSS, but more often learning is two-dimensional.	Teachers use a few instructional strategies to make ideas accessible to students and may encourage some students to think critically or to deepen their knowledge of science.	Teachers teach science as a body of knowledge to be learned with few instructional strategies.
	Teachers offer ongoing opportunities for student reflection and self-assessment.	Teachers offer some opportunities for student reflection and self-assessment.	Teachers offer few opportunities for student reflection and self-assessment	Teachers do not encourage students to reflect on or assess their own work.
Assessment Practices	Teachers use information from a variety of assessments—that are three dimensional—to plan and modify instruction.	Teachers use information from a variety of assessments—that may be two dimensional—to occasionally plan and modify instruction.	Teachers use information from a limited range of assessments—not aligned to the shifts in NGSS—to plan learning sequences. Assessments may be used to inform instruction.	Teachers use one or two sources of information to assess student understanding. Assessments are not used to inform instruction.
Learning Environment	Teachers successfully develop a learning environment that puts student thinking at the center of instruction.	Teachers attempt to develop a learning environment that puts student thinking at the center of instruction.	Teachers recognize the value of a student-centered classroom environment but lack the capacity to develop such an environment.	Teachers conduct class with little or no appreciation of student thinking and promote a teacher-centered learning environment.