

NextGen TIME Pilot Leader Guide

Introduction

To analyze instructional materials for how student thinking and engagement is addressed, how teachers are supported in providing NGSS aligned instruction and to enable participants to apply Pilot tools and process.

Goals and Outcomes:

Overall

- learn a process for analyzing instructional materials in light of the NGSS
- apply the process and tools to help you
 - Increase your shared understanding of the characteristics of high-quality instructional materials and the NGSS
 - Use the results of the process to inform the selection of instructional materials
 - Use the results of the process to inform planning for classroom use.

Pilot

- Test instructional materials in the classroom
- Use evidence to inform final selection decision or recommendation
- Use evidence to inform PL and other support needed for broad and effective use of selected program across the district

Overview

Part 1 Introduction to Pilot (Slides 1-12) [15 minutes]

Total Time:

155 min plus
10 min break

Note: Times
are estimates

Purpose: Set the stage for the focus of the session.

Summary: Review purpose and outcomes for NextGen TIME, orient participants to where they are in the process, and introduce and provide time for participants to consider the components of the Pilot tools and process.

Part 2 Focus on Student Learning (Slides 13-24) [105 minutes]

Purpose: Introduce participants to Tools 1-4.

Summary: Participants complete the appropriate portions of Tool 1 and are oriented to how Tools 1-4 will be used during the Pilot.

Part 3 Focus on Teacher Support (Slides 25-28) [15 minutes]

Purpose: Introduce participants to Tool 5.

Summary: Participants complete the appropriate portions of Tool 5 and are oriented to how Tool 5 will be used during the Pilot.

Part 4 Scoring (Slides 29-31) (10 minutes)

Purpose: Explain how evidence is used to score the student learning and teacher support components of the pilot and to share how pilot scores, combined with paper screen score, enable a district to make a recommendation for selection

Part 5 Reflection (Slide 32) [10 min]

Purpose: Close the session.

Summary: Revisit the goals and link to Planning Phase of NextGen TIME

- Materials:**
- NextGen TIME Process and Tools chart with arrow
 - Instructional materials
 - Artifacts from Paper Screen for programs that will be piloted

Handouts PER TEACHER

HO 1	Pilot Overview
HO 2	Tool 1 X 5/program
HO 3	Tool 2 X 5 X # students/program
HO 4	Tool 3 X 5/program
HO 5	Tool 4 X 5/program
HO 6	Tool 5/program

Handouts PER TEAM

HO 7	Pilot Score Sheet: Student Learning
HO 8	Pilot Score Sheet: Teacher Support
HO 9	Task Sheet (What to do; What to bring)

Resources

Optional Text Resources

R 1	<i>A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (2012)</i> by National Research Council
R 2	<i>Next Generation Science Standards For States, By States Volume 1: The Standards (2013)</i> by NGSS Lead States
R 3	<i>Next Generation Science Standards For States, By States Volume 2: The Appendices (2013)</i> by NGSS Lead States

Other Resources

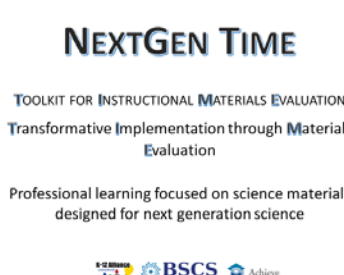
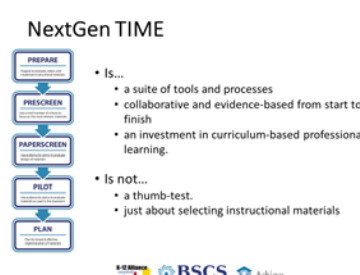
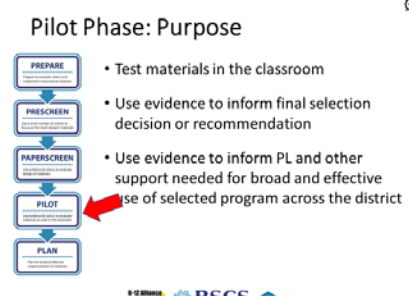
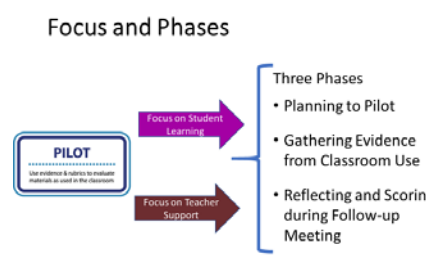
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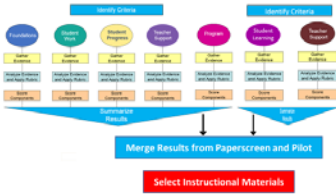


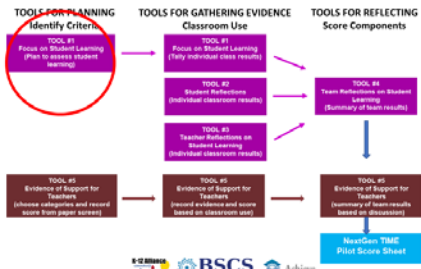

- Advance Preparation:**
- Create and post the score sheet chart
 - Share electronic version of all Tools

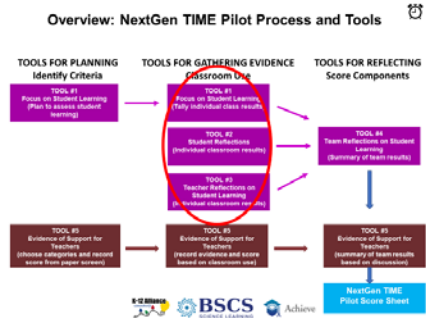
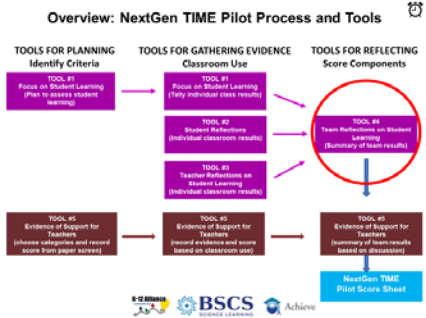
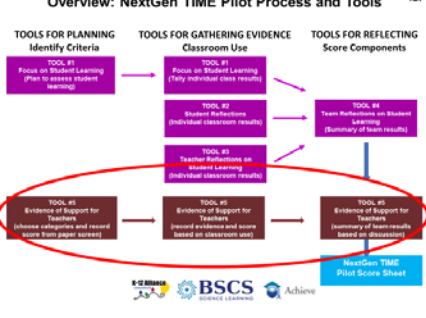
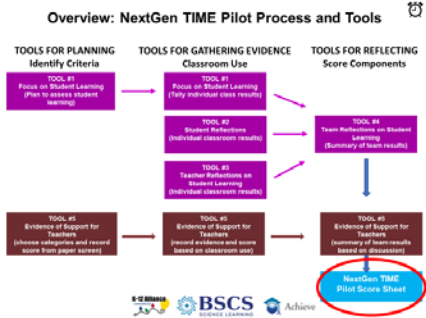
Part 1

Introduction Slides 1-13




(30 minutes)




Slide and Time	Facilitation Notes
<p>Slides 1-3 (3 minutes)</p>  <p>NEXTGEN TIME</p> <p>TOOLKIT FOR INSTRUCTIONAL MATERIALS EVALUATION</p> <p>Transformative Implementation through Materials Evaluation</p> <p>Professional learning focused on science materials designed for next generation science</p> <p><small>K-12 ALLIANCE BSCS SCIENCE LEARNING Achieve</small></p>	<p>Slide 1 Title</p> <p>Welcome participants to the session.</p>
<p>Slides 1-3 (see above)</p>  <p>NextGen TIME</p> <ul style="list-style-type: none"> Is... <ul style="list-style-type: none"> a suite of tools and processes collaborative and evidence-based from start to finish an investment in curriculum-based professional learning. Is not... <ul style="list-style-type: none"> a thumb-test. just about selecting instructional materials <p><small>K-12 ALLIANCE BSCS SCIENCE LEARNING Achieve</small></p>	<p>Slide 2 NextGen TIME Graphic</p> <p>Highlight where we are in the overall NextGen TIME Process.</p>
<p>Slides 1-3 (see above)</p>  <p>Pilot Phase: Purpose</p> <ul style="list-style-type: none"> Test materials in the classroom Use evidence to inform final selection decision or recommendation Use evidence to inform PL and other support needed for broad and effective use of selected program across the district <p><small>K-12 ALLIANCE BSCS SCIENCE LEARNING Achieve</small></p>	<p>Slide 3 Purpose</p> <p>Share with participants the purpose of the Pilot Phase of NextGen TIME.</p>
<p>Slide 4-5 (3 minutes)</p>  <p>Focus and Phases</p> <p>PILOT Use evidence & skills to evaluate materials as used in the classroom</p> <ul style="list-style-type: none"> Focus on Student Learning Focus on Teacher Support <p>Three Phases</p> <ul style="list-style-type: none"> Planning to Pilot Gathering Evidence from Classroom Use Reflecting and Scoring during Follow-up Meeting <p><small>K-12 ALLIANCE BSCS SCIENCE LEARNING Achieve</small></p>	<p>Slide 4 Focus and Phases</p> <p>Provide an overview of the focus and phases of the Pilot. Provide an idea of the timeline for each phase of the process.</p>

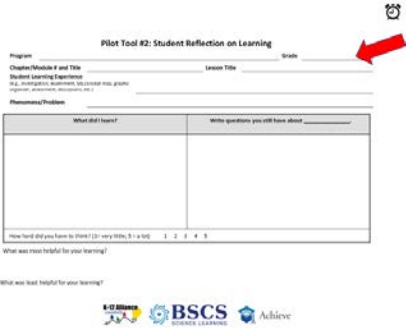


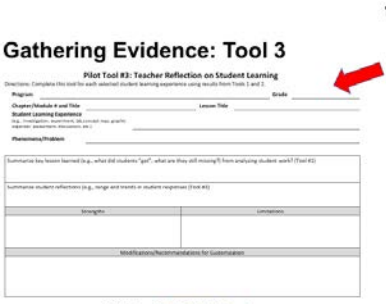


Slide and Time	Facilitation Notes
<p>Slides 4-5 (see above)</p> <p>Session Goals</p> <ul style="list-style-type: none"> Learn to use the Next Gen TIME Pilot processes and tools. Apply Pilot processes and tools to up to two programs as determined in the paper screen. 	<p>Slide 5 Session Goals</p> <p>Share with participants the session goals.</p>
<p>Slide 6 (6 minutes)</p> <p>Paperscreen and Pilot Phases</p>  	<p>Slide 6 Linking</p> <p>Invite participants to consider the questions on the slide. Gather ideas from the group.</p> <p>Forecast that for the next few minutes, you'll provide an overview of Pilot Tools and Process.</p>
<p>Slides 7-12 (5 min)</p> <p>Linking back to the Paperscreen</p> <ul style="list-style-type: none"> What one or two programs will you pilot in the classroom? Why did you choose these one or two programs? Which "units" will you pilot? How will you decide? 	<p>Slide 7 Overview</p> <p>Note the three phases of the Pilot and that as noted earlier, the focus will be on student learning (pink boxes) and support for teachers (brown boxes). By the end of the process, participants will have planned for classroom use, gathered evidence from using the Tools, and scored each program under consideration (blue box)</p>
<p>Slides 7-12 (see above)</p> <p>Overview: NextGen TIME Pilot Process and Tools</p>  	<p>Slide 8 Overview</p> <p>Note the purpose of Tool 1 to help participants focus on student learning by planning how to assess student learning.</p>

Slide and Time	Facilitation Notes
<p>Slides 7-12 (see above)</p> 	<p>Slide 9 Overview</p> <p>Note that during the gathering evidence phase, each teacher piloting the identified program/programs and “units” of instruction will score student work, gather student reflections, and reflect themselves on the student work.</p>
<p>Slides 7-12 (see above)</p> 	<p>Slide 10 Overview</p> <p>In the follow-up meeting teachers will share the evidence gathered during classroom use and reflect together on the process.</p>
<p>Slides 7-12 (see above)</p> 	<p>Slide 11 Overview</p> <p>Note that the process also includes a focus on teacher support. Note that participants will have an opportunity to plan for evidence collection using Tool 5. They will continue to use Tool 5 to gather evidence in the classroom, and for reflection as a team to score this component.</p>
<p>Slides 7-12 (see above)</p> 	<p>Slide 12 Overview</p> <p>The team then reflects on and scores the evidence to inform a selection decision and identify support for widespread and effective use for the selected program.</p>

Part 2: Focus on Student Learning (105 minutes or more) NOTE: Refer to appropriate HO for each Tool.

Slide and Time	Facilitation Notes
<p>Slide 13-15 (25 min)</p> 	<p>Slide 13 Tool 1</p> <p>Share Tool 1 and ask participants what they notice. Validate responses and ask follow-up questions. Follow-up questions may include: How would that help focus on student learning? Why is that important?</p> <p>Note that this tool is used for PLANNING to help gather evidence.</p>
<p>Slide 13-15 (see above)</p> <p>Planning: Tool 1 Overview</p> <ul style="list-style-type: none"> Determine a range of “learning experiences” that will be used to help you focus on student learning. Identify the Phenomena/Problem List intended outcomes Determine the extent to which the outcome is 3D Describe how students make their thinking visible Describe quality of student work 	<p>Slide 14 Planning: Tool 1 Overview</p> <p>Provide a brief overview of the tool and what they need to complete during this planning phase.</p> <p>Explain that they will use this tool with 5 different learning experiences</p>
<p>Slide 13-15 (see above)</p> <p>Planning: Tool 1</p> <ul style="list-style-type: none"> Begin by choosing ONE experience. Record relevant information on the top of Tool 1. Determine if the materials include learning outcomes for the experience. Record responses on Tool 1. If the materials don't provide learning outcomes, use the student work to write outcomes (See the next slide). 	<p>Slide 15 Planning: Tool 1</p> <p>Provide a few minutes for participants to consider what kinds of learning experiences they think would be valuable for assessing how well the materials support and assess student learning. Follow-up questions may include: Where would you find fruitful examples (artifacts from Paper Screen)?</p> <p>Provide time for teams to choose ONE learning experience (or point them in a productive direction).</p> <p>Provide instructions for completing the student learning outcomes.</p> <p>If learning outcomes are not provided, go to the next slide to help participants determine how students will demonstrate their understanding. Work backwards from student work to create learning outcomes.</p> <p>Record learning outcomes on Tool 1.</p>

Slide and Time	Facilitation Notes
<p>Slide 16 (20 min)</p> <p>Planning: Tool 1</p> <ul style="list-style-type: none"> Determine if the materials include how students will make their thinking visible. Record responses on Tool 1. If the materials don't provide how students will make their thinking visible, write a description of how that might play out in the classroom. 	<p>Slide 16 Planning: Tool 1</p> <p>Provide instruction for determining if the materials include how students will make their thinking visible.</p> <p>If the materials do not include how students will make their thinking visible, brainstorm ways student thinking might be described.</p> <p>Record on Tool 1.</p>
<p>Slide 17 (20 min)</p> <p>Planning: Tool 1</p> <ul style="list-style-type: none"> Determine if the materials include guidance for assessing student work that describes high-, medium-, and low-quality work. Also determine if the materials provide a rubric or scoring guide. If so, record a summary of information provided in the space provided. Copy and staple the original to Tool 1. If not, develop score descriptors or a rubric. 	<p>Slide 17 Planning: Tool 1</p> <p>Provide instruction to help participants determine if the materials include guidance for assessment, i.e., score descriptors, of student work that is high, medium, or low performance.</p> <p>If guidance for assessment of student work is not provided in the materials, provide instruction to help participants identify or determine score descriptors.</p> <p>Also determine, if a rubric or scoring guide is included in the materials. If it is not provided, help participants to craft a rubric.</p> <p>Note that if guidance is provided, participants should copy and staple the relevant pages to the completed Tool.</p>
<p>Slide 18 (5 min)</p> <p>Gathering Evidence: Tool 1</p> <ul style="list-style-type: none"> You will tally results for YOUR students AFTER you teach the unit. Select an example of high, medium, and low-quality work to bring with you to the follow-up meeting. During the Follow-up Meeting, you will combine results with others in the Pilot follow-up meeting to help you score each program. 	<p>Slide 18 Gathering Evidence: Tool 1</p> <p>Explain to participants that they will score student work samples after instruction.</p> <p>Also explain to participants that they will tally the number of students performing at each score descriptor.</p> <p>Participants will also indicate the extent to which the learning experience supports student understanding of the phenomenon after they have looked at student work.</p> <p>Share with participants that the tallies will be used at the follow-up meeting.</p>

Slide and Time	Facilitation Notes
<p>Slide 19 (5 min)</p> 	<p>Slide 19 Tool 2</p> <p>Share Tool 2 and ask participants what they notice. Follow-up questions may include: How would that help focus on student learning? Why is that important? Note that this tool is used to help gather evidence and in the reflection/scoring component of the Pilot. They will use this tool for every student for each of the learning experiences.</p>
<p>Slide 20 (5 min)</p> <p>Gathering Evidence: Tool 2</p> <ul style="list-style-type: none"> • Invite students (interview K-1 students) to complete one copy of Tool 2 at the completion of EACH learning experience. • Match the student reflection for each high, medium, and low-quality piece of student work selected. • Bring the student reflections with you to the Follow-Up Meeting.  	<p>Slide 20 Gathering Evidence: Tool 2</p> <p>Provide an overview of how participants will use the Tool and what they'll bring back with them to the follow-up meeting.</p> <p>For K-1 students, they will interview students and write their ideas. For 2-12 grade students, the students will write their ideas.</p> <p>Refer participants to H09 for what they need to do during each phase and the artifacts they need to collect and bring with them to the follow-up meeting.</p>
<p>Slide 21 (5 min)</p> <p>Gathering Evidence: Tool 3</p> 	<p>Slide 21 Tool 3</p> <p>Share Tool 3 and ask participants what they notice. Follow-up questions could include: How would that help focus on student learning? Why is that important? Note that this tool is used to help gather evidence which will contribute to information on Tool #4 in the reflection/scoring component of the Pilot.</p>
<p>Slide 22 (5 min)</p> <p>Gathering Evidence: Tool 3</p> <ul style="list-style-type: none"> • Complete this tool for each selected student learning experience using results from Tools 1 and 2 • Bring the completed tools to the Follow-up Meeting.  	<p>Slide 22 Gathering Evidence: Tool 3</p> <p>Provide an overview of how participants will use the Tool and what they'll bring back with them to the follow-up meeting.</p> <p>Refer them to H09 for what they need to do during each phase and the artifacts they need to collect and bring with them to the follow-up meeting.</p>

Slide and Time	Facilitation Notes
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Slide 23 (5 min)

Pilot Tool #4: Team Reflection on Student Learning

Directions: Use this tool to summarize each project to include from Tools #1, #2, and #3. Complete one for each student learning experience.

Project: _____ Grade: _____

Chapter/Module # and Title: _____ Lesson Title: _____

Overall Student Score (Combine individual class results from Tool #3)

High Quality Work		Medium Quality Work		Low Quality Work	
Number of High Quality	Percentage of High Quality	Number of Medium Quality	Percentage of Medium Quality	Number of Low Quality	Percentage of Low Quality
Score		5	3	1	

As a team, would you recommend that this student learning experience remain as is? Why or why not? What changes would you recommend?

What professional learning is needed to better implement this learning experience to increase student understanding?

Slide 23 Tool 4

Provide an overview of how participants will use the Tool when the team reconvenes at the Follow Up Meeting.

Slide 24 (5 min)

Reflecting: Tool 4

- During the follow-up meeting, work as a group to complete this tool for each selected student learning experience using results from Tools #1, #2, and #3.

Slide 24 Reflecting: Tool 4

Explain that this tool is a summary of what the individual teachers gathered in Tools #1, #2, and #3.

Clarify how to complete the Overall Student Score (if time is limited, they only need to complete the high quality work tallies) form Tool #1.

Remind them to use the results from individual Tools #2 and Tools #3 to complete the recommendations for changes to the learning experiences and for identifying what professional learning is needed to better implement this learning experience.

Slide 25 (5 min)

Pilot Tool #5: Evidence of Support for Teachers

Directions: Record this tool from the experiences for each component in the space provided. Record and analyze evidence from your actual experience with following questions as guides.

1. To what extent did the evidence shed on the extent of support that you experienced with this tool?

2. How do you envision support for your school over the course of the year?

3. How do you envision support for your school over the course of the year?

4. How do you envision support for your school over the course of the year?

5. How do you envision support for your school over the course of the year?

6. How do you envision support for your school over the course of the year?



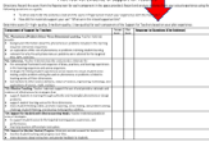



Component of Support for Teachers	Response to Questions (2-5) following	
	Yes	No
1. The implementation of the tool (the process) or problems included in the learning experience were:		
2. An assessment of the role of phenomena or problems in driving student learning:		
3. The tool was used to:		
4. The tool was used to:		
5. The tool was used to:		
6. The tool was used to:		
7. The tool was used to:		
8. The tool was used to:		
9. The tool was used to:		
10. The tool was used to:		

Slide 25 Tool #5

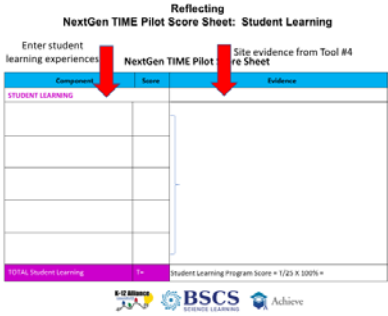
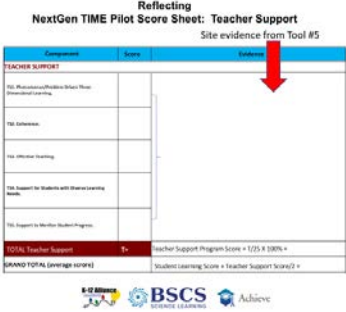
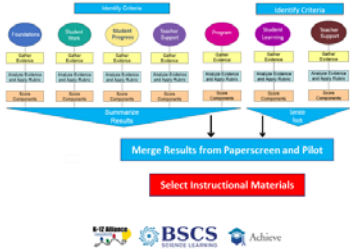
Share Tool 5 and ask participants what they notice. Follow questions could include: How would that help focus on teacher support? Why is that important?

Note that this tool is used in planning, gathering evidence, and to help in the reflection/scoring component of the Pilot. Today they will plan, then gather evidence in their classroom, and then bring Tool 5 for each learning experience back to the Follow Up Meeting.


Part 3: Focus on Teacher Support (40 min) NOTE: Refer to appropriate HO for each Tool.

Slide and Time	Facilitation Notes
<p>Slide 26 (10 min)</p> <p>Planning: Tool 5</p> <ol style="list-style-type: none"> 1. Enter scores from the paper screen for each component. 2. Complete one Tool 5 for each learning experience.  	<p>Slide 26 Planning: Tool 5</p> <p>Have participants enter the paper screen score for each component. Provide time for participants to complete the top portion of the Tool.</p> <p>They will complete one Tool 5 for each learning experience</p>
<p>Slide 27-28 (5 min)</p> <p>Gathering Evidence: Tool 5</p> <p>Using the questions as a guide, record evidence from your actual experience for each component.</p>  	<p>Slide 27 Gathering Evidence: Tool 5</p> <p>Explain that they will gather evidence about teacher support as they are teaching. Using the questions in this column, they will enter evidence about each component.</p>
<p>Slide 28 (see above)</p> <p>Gathering Evidence: Tool 5</p> <ol style="list-style-type: none"> 1. Determine score for each element of the components. 2. Bring the completed Tool 5 sheets to the Follow Up Meeting <p>(note: team will reflect on this evidence and use it for a final score)</p>  	<p>Slide 28 Gathering: Tool 5</p> <p>They will then score the pilot column based on their evidence.</p> <p>Remind participants that they will bring back Tool 5 for each learning experience to the Follow Up Meeting.</p>

Part 4 Score (10 minutes)

Slide and Time	Facilitation Notes
<p>Slide 29-31 (10 min)</p> 	<p>Slide 29 Reflecting and Scoring: Student Learning</p> <p>Explain that the score sheet has two parts: 1) student learning and 2) teacher support.</p> <p>At the Follow up Meeting, the teams will use their evidence gathered during teaching and their discussions about that evidence to score each part.</p> <p>On this score sheet they will enter the 5 learning experiences, with a score and then provide a summation of the evidence that was used to determine the score.</p>
<p>Slide 30 (see above)</p> 	<p>Slide 30 Reflecting and Scoring: Teacher Support</p> <p>On this score sheet, participants will enter the scores for each component and then provide a summation of the evidence that was used to determine the score.</p> <p>They will then add the score for student learning with the score for teacher support to get a total score for the pilot.</p>
<p>Slide 31 (see above)</p> 	<p>Slide 31 Score for Selection</p> <p>Explain that participants then combine the scores from the paper screen and the pilot. They then rank order the instructional materials and decide on which they select and recommend for adoption.</p> <p>Participants can also create documentation of their scoring (using information from the score sheets and the evidence pages) to present to authorities for the purchase/implementation of the selected materials.</p>

Part 5 Reflection (10 minutes)

Slide and Time	Facilitation Notes
<p>Slide 32 (10 min)</p> <p>Forecast the Plan Phase</p> <ul style="list-style-type: none">• How can you use information gathered through the Pilot to help you plan for broad and effective use of the program you select? 	<p>Slide 32 Forecast</p> <p>Provide an opportunity to participants to consider the question and then gather ideas from the group.</p> <p>Close the session with a reminder of what is needed for the Follow Up Meeting (H09) and the time and place for that meeting.</p>