



EQuIP for Science v3.0

MODULE

4

# Overview of the EQuIP Rubric



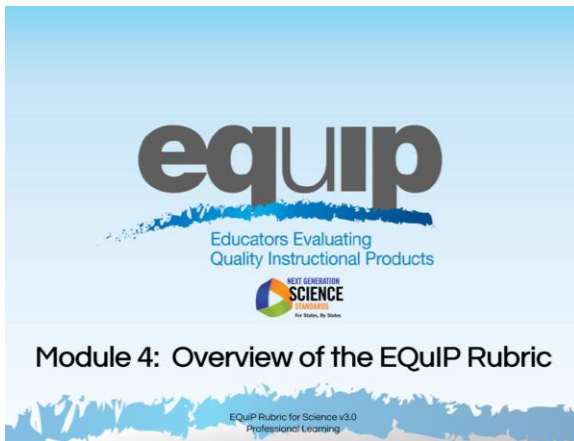
## Module 4: Overview of the EQuIP Rubric

Module 4 provides an overview of the EQuIP Rubric including a background on its development, the purposes of the rubric, and basic information about its structure and contents. This module also includes information on the quality review process—a collegial process that centers on the use of the criteria-based rubric for examining science lessons and units—including the agreements required for participating in the review.

### Materials Needed

1. [Module 4 PowerPoint slides](#) or slides 90–101 of the [full PowerPoint](#)
2. [Handout 6: Module 4, “EQuIP Agreements”](#)
3. [Handout 7: Module 4, “EQuIP Rubric, Version 3”](#)

## Introduction to Module 4



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### Module 4: Overview of the EQiP Rubric

- Who developed the EQiP Rubric and why?
- What are the purposes and objectives for using the EQiP Rubric?
- How is the EQiP Rubric structured?

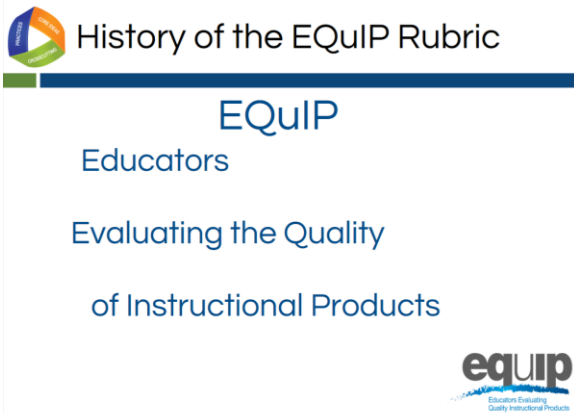


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### Talking Points

- In Module 4, we will begin looking at the EQiP Rubric so that all participants will be able to answer the following questions confidently:
  - Who developed the EQiP Rubric and why?
  - What are the purposes and objectives for using the EQiP Rubric?
  - How is the EQiP Rubric structured?

## History of the EQiP Rubric



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### Talking Points

- EQiP stands for Educators Evaluating the Quality of Instructional Products.
- The original criterion-based rubrics and review processes were developed to evaluate the quality of lessons and units for the CCSS for ELA/literacy and mathematics.
- The original ELA/literacy and mathematics rubrics were known as the Tri-State Rubrics because they were developed through a collaborative effort by Massachusetts, New York, and Rhode Island.
- This initial collaboration was facilitated by Achieve. There was so much interest in the rubric that Achieve facilitated a convening of states that wanted to learn more about the rubrics and use them to identify high-quality, aligned materials. The original states using the rubric were deemed the EQiP Collaborative and the rubrics became known as the EQiP Rubrics. Many more states have learned about and used the EQiP Rubrics for ELA/literacy and mathematics since the original collaborative.
- EQiP for NGSS builds on the work of EQiP for CCSS and has been developed to be similar to the EQiP Rubrics for CCSS while, at the same time, addressing the specific needs of the science standards.
- The development of the EQiP Rubric for NGSS was managed by Achieve in partnership with NSTA. It was written and reviewed by science education experts in several states, CCSS EQiP developers, standards writers, and other science and engineering education experts.
- The EQiP Rubric for NGSS also has been tested with teacher focus groups.

## Purposes and Objectives of the EQUIP Rubric

### A Few Important Points

The Equip Rubric <b>IS</b>	The Equip Rubric <b>IS NOT</b>
Designed to evaluate <b>LESSONS</b> that include instructional tasks and assessments aligned to NGSS	Designed to evaluate a single task or activity or a full curriculum
Designed to evaluate <b>UNITS</b> that include integrated and focused lessons aligned to the NGSS that extend over a longer period of time	Designed to require a specific template for lessons or units

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### Talking Points

- As defined by the EQUIP Rubric:
  - A lesson is a coherent set of instructional activities and assessments that may extend over a few to several class periods or days; and
  - A unit is a coherent set of lessons that extend over a longer period of time.
- An integrated instructional sequence is rooted in an explanatory question aimed at making sense of a phenomenon or designing a solution to a problem.
- With these definitions in mind, it is important to note that the lessons the EQUIP Rubric is designed to evaluate may extend over a few class periods or days.
- Any single task, activity, or mini-lesson would not be suitable for use with the EQUIP Rubric as it would likely not include instructional supports and assessments, two of the categories of the rubric.
- Likewise, the EQUIP Rubric is not appropriate for reviewing a full curriculum; however, the rubric could be used to review specific lessons or units within the curriculum. A tool is currently being developed to look at full curricula.
- Finally, the EQUIP Rubric does not require that lessons or units be put into a specific format in order to be evaluated against the rubric criteria.

### Purposes & Objectives of the EQUIP Rubric

1. Review existing lessons and units to determine what revisions are needed;
2. Provide constructive criterion-based feedback and suggestions for improvement to developers;
3. Identify exemplars/models for teachers' use within and across states; and
4. Inform the development of new lessons and units.



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## Talking Points

- The EQuIP quality review process is a collegial process that centers on the use of the criterion-based rubric for examining science lessons and units.
- While an individual certainly might use the rubric to examine a lesson or unit, the effective evaluation of lessons and units is the product of examination and discussion by a group of people using the rubric collaboratively.
- The specific, stated purposes of the EQuIP rubric are to:
  - Review existing lessons and units to determine what revisions are needed;
  - Provide constructive criterion-based feedback and suggestions for improvement to developers;
  - Identify exemplars/models for teachers' use within and across states; and
  - Inform the development of new lessons and units.
- Other implicit goals of the rubric include:
  - Assisting teachers and district staff in the selection of high-quality instructional materials that are designed for the NGSS; and
  - Serving as a professional learning tool for analyzing lessons and units and deepening understanding of the NGSS.

## EQuIP Quality Review Agreements

1. NGSS
2. Inquiry
3. Respect & Commitment
4. Criteria & Evidence
5. Constructive
6. Individual to Collective
7. Understanding & Agreement



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## Facilitator Notes


Refer participants to [Handout 6, Module 4, "EQuIP Agreements."](#)

## Talking Points

- Everyone using the EQuIP Rubric to examine NGSS lessons and units should commit to the following agreements:
  - **NGSS Understanding:** Before beginning a review, all members of a review team have an understanding of the NGSS and the Framework.
  - **Inquiry:** Review processes emphasize inquiry (seeking to understand) rather than advocacy and are organized in steps using a set of guiding questions.

- **Respect and Commitment:** Each member of a review team is respected as a valued colleague and contributor who makes a commitment to the EQuIP process.
- **Criteria and Evidence:** All observations, evaluations, discussions, and recommendations are criterion- and evidence-based.
- **Constructive Feedback:** Lessons and units to be reviewed are seen as “works in progress.” Reviewers are respectful of contributors’ work and make constructive observations and suggestions based on evidence from the work.
- **Individual to Collective Reviews:** Each member of a review team independently records his/her observations prior to discussion. Discussions focus on understanding all reviewers’ interpretations of the criteria and the evidence they have found.
- **Understanding and Agreement:** The goal of the process is to compare and eventually calibrate evaluations to move toward agreement about quality with respect to the NGSS.
- A rule of thumb for maintaining a respectful, collegial discussion might be to behave as if someone at your table has written or collaborated on a lesson or unit you are examining. Sometimes this may even be the case.

## The Three-Category Structure of the Rubric

 <b>The Three-Category Structure of the Rubric</b>		
Category I	Category II	Category III
<b>NGSS 3-D Design</b> <i>The lesson/unit is designed so students learn the three dimensions of the NGSS through three-dimensional student performances that engage students in making sense of phenomena and/or to design solutions to problems. Lessons and units designed for the NGSS include the following:</i> <b>A. Explaining phenomena/ designing solutions</b> <b>B. Three dimensions</b> <b>C. Integrating the Three Dimensions</b>	<b>NGSS Instructional Supports</b> <i>The lesson/unit supports instruction and learning for all students by placing the lesson in a sequence of learning for all three dimensions and providing support for teachers to engage all students in three dimensional learning. Lessons and units designed for the NGSS include the following:</i> <b>A. Relevance and Authenticity</b> <b>B. Student Ideas</b> <b>C. Building Progressions</b> <b>D. Scientific Accuracy</b> <b>E. Differentiated Instruction</b>	<b>Monitoring NGSS Student Progress</b> <i>The lesson/unit supports three dimensional learning by providing feedback to students and teachers about student progress across all three dimensions. Lessons and units designed for the NGSS include the following:</i> <b>A. 3D student performances</b> <b>B. Formative assessments</b> <b>C. Scoring guidance</b> <b>D. Unbiased tasks/items</b>

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### Facilitator Notes


Refer participants to their copy of the EQuIP Rubric version 3.0.

### Talking Points

- Get out your copy of the EQuIP Rubric.
- Before we begin talking about the structure of the EQuIP Rubric version 3.0, turn to page two of the rubric—the back of the first page—and take a few minutes to circle important terms that jump out at you as you read through the document. *[Note to facilitator: Allow three to five minutes for participants to circle terms then ask several to share. Keep this sharing non-evaluative and avoid responding to participants with words such as “good” or “great,” which tend to signify right or wrong answers.]*
- Now let’s dive deeper into the rubric.
- All educators will examine instructional materials against the criteria in each category.



- As you can see, each category is structured with criteria for a lesson or unit at the top and additional criteria for a unit or longer lesson at the bottom.
- Within each category, specific criteria and sub-criteria are delineated, with uppercase Arabic letters (A, B, C, etc.) representing the main criteria and lowercase Roman numerals (i, ii, iii, etc.) representing the sub-criteria.
- Working collaboratively, educators are able to use common standards for quality and to generate evidence-based commentary on the quality and alignment of materials.
- A rating scale is found for each category as well as category ratings and a total score for the entire rubric.

 **The Three-Category Structure of the Rubric**

Category I	Category II	Category III
<b>NGSS 3-D Design</b>		
<p>The lesson/unit is designed so students learn the three dimensions of the NGSS through three-dimensional student performances that engage students in making sense of phenomena and/or to design solutions to problems. Lessons and units designed for the NGSS include the following:</p> <p><b>A. Explaining phenomena/ designing solutions</b>  <b>B. Three dimensions</b>  <b>C. Integrating the Three Dimensions</b></p>		

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## Talking Points

- The first category is NGSS 3D Design. This includes supporting students in three-dimensional learning to explain phenomena or design solutions *and* ensuring lessons fit together coherently and develop connections.
- We will use the EQiP Rubric to examine NGSS materials—lessons and units—carefully and in detail to determine whether or not they align with the conceptual shifts of the NGSS, including Category I, which states that “the lesson/unit is designed so that students make sense of phenomena and/or design solutions to problems by engaging in student performances that integrate the three dimensions of the NGSS.
- Examining a lesson or unit against the criteria in Category I: NGSS 3D Design, may reveal evidence related to Category II: NGSS Instructional Supports and/or Category III: Monitoring NGSS Student Progress; however, the EQiP process involves examining a lesson or unit against the criteria for Category I before moving on to Category II and finally to Category III.
- If, as a result of examining a lesson or unit in relation to the criteria for Category I, we determine this NGSS alignment exists, we will then examine that lesson or unit further in relation to the criteria for Categories II and III.
- If, however, we determine this alignment does not exist, we may elect to discontinue any examination of the lesson or unit; or, if we determine that a lesson or unit has the potential to align with specific, targeted revisions, we may continue with our examination and provide guidance for the lesson or unit designer or user in regard to the changes that need to be made to bring the lesson or unit into alignment.
- Tricia Shelton, science teacher at Boone County Schools in Kentucky, explains this further in this short [video](#).







## The Three-Category Structure of the Rubric

Category I	Category II	Category III
	<p><b>NGSS Instructional Supports</b></p> <p><i>The lesson/unit supports instruction and learning for all students by placing the lesson in a sequence of learning for all three dimensions and providing support for teachers to engage all students in three dimensional learning. Lessons and units designed for the NGSS include the following:</i></p> <p><b>A. Relevance and Authenticity</b>  <b>B. Student Ideas</b>  <b>C. Building Progressions</b>  <b>D. Scientific Accuracy</b>  <b>E. Differentiated Instruction</b></p>	

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### Talking Points

- Now let's look more closely at Category II: NGSS Instructional Supports. Category II focuses on supporting three-dimensional teaching and learning for all students by placing the lesson in a sequence of learning for all three dimensions and providing support for teachers to engage all students. Criteria and sub-criteria focus on engaging students in three-dimensional learning that is relevant, authentic, and connected to students' experiences.
- In addition, this category includes criteria related to providing guidance to help teachers build coherence and to provide and adjust supports for students in order to make students increasingly responsible for their learning.



## The Three-Category Structure of the Rubric

Category I	Category II	Category III
		<p><b>Monitoring NGSS Student Progress</b></p> <p><i>The lesson/unit supports three dimensional learning by providing feedback to students and teachers about student progress across all three dimensions. Lessons and units designed for the NGSS include the following:</i></p> <p><b>A. 3D student performances</b>  <b>B. Formative assessments</b>  <b>C. Scoring guidance</b>  <b>D. Unbiased tasks/items</b></p>

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### Talking Points

- The third category, Monitoring NGSS Student Progress, ensures that assessments elicit observable evidence of three-dimensional learning, include formative assessments, and are accessible and unbiased.
- It also ensures that all assessments—pre-, formative, and summative—are aligned to three-dimensional learning.

## The Three-Category Structure of the Rubric

Category I	Category II	Category III
<b>NGSS 3-D Design</b>	<b>NGSS Instructional Supports</b>	<b>Monitoring NGSS Student Progress</b>
<p>The lesson/unit is designed so students learn the three dimensions of the NGSS through three-dimensional student performances that engage students in making sense of phenomena and/or to design solutions to problems. Lessons and units designed for the NGSS include the following:</p> <p><b>A. Explaining phenomena/ designing solutions</b>  <b>B. Three dimensions</b>  <b>C. Integrating the Three Dimensions</b></p>	<p>The lesson/unit supports instruction and learning for all students by placing the lesson in a sequence of learning for all three dimensions and providing support for teachers to engage all students in three dimensional learning. Lessons and units designed for the NGSS include the following:</p> <p><b>A. Relevance and Authenticity</b>  <b>B. Student Ideas</b>  <b>C. Building Progressions</b>  <b>D. Scientific Accuracy</b>  <b>E. Differentiated Instruction</b></p>	<p>The lesson/unit supports three dimensional learning by providing feedback to students and teachers about student progress across all three dimensions. Lessons and units designed for the NGSS include the following:</p> <p><b>A. 3D student performances</b>  <b>B. Formative assessments</b>  <b>C. Scoring guidance</b>  <b>D. Unbiased tasks/items</b></p>

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### Talking Points

- By working collaboratively, educators can use common definitions of quality to generate evidence-based commentary on the quality and alignment of materials.
- We've just begun looking at the EQuIP Rubric by examining how it's structured. Each of these three categories of the EQuIP Rubric will be discussed in greater detail in subsequent modules.

## Concluding Slide for Module 4

### Module 4 Reflection

- Who developed the EQuIP Rubric and why?
- What are the purposes and objectives for using the EQuIP Rubric?
- How is the EQuIP Rubric structured?




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### Talking Points



- Take a minute or two to look over the EQuIP Rubric again, noting the words you circled at the start of this module.
- Would you still circle the same words? Are there words you wouldn't circle? Are there more words you would circle? Why or why not?

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- How has what you've learned in this module informed your understanding of the EQiP Rubric? What questions do you still have? *[Note to facilitator: After three to four minutes, allow participants to share their thoughts and ask any remaining questions.]*
  - In the next module, we'll take a look at what we mean when we talk about such things as evidence and reasoning in relation to using the EQiP Rubric.