# Introduction to Performance Assessments

Carmen Araoz
REL Appalachia
SRI International

Emma Pellerin
REL Appalachia
SRI International

Kori Hamilton Biagas
REL Appalachia
SRI International

Jessica Bailey
REL Appalachia
Education Development Center

Anne Petersen
Virginia Department of Education

Carrie Roop
Prince William County Public Schools

Erin Lowery
Prince William County Public Schools

# Welcome and Overview

Carmen Araoz
Project Manager

# Meet your facilitators

Carmen Araoz
**REL Appalachia**
*SRI International*

Emma Pellerin
**REL Appalachia**
*SRI International*

Kori Hamilton Biagas
**REL Appalachia**
*SRI International*

Jessica Bailey
**REL Appalachia**
*Education Development Center*

Anne Petersen
**Virginia Department of Education**

# Performance assessment implementation experts

Erin Lowery
Science Teacher
Prince William County Public Schools
Human Impact on Watershed Health in Grade 6

Carrie Roop
Science Teacher
Prince William County Public Schools
Science for Oceanography in Grade 5

# Behind the scenes...

Elizabeth McBride
Education Researcher

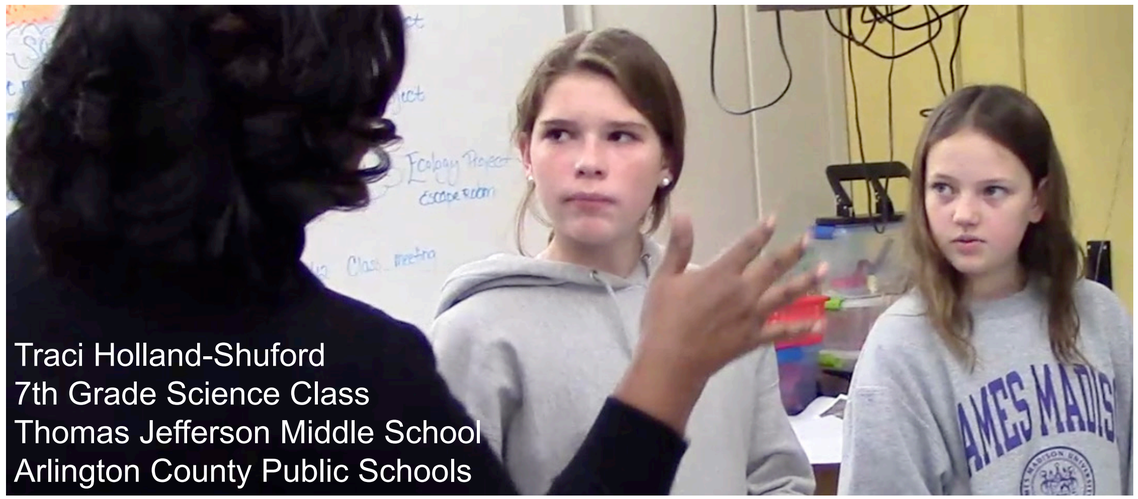
Jennifer Powell
Science Coordinator
Arlington County Public Schools

Gina R. Townsend
Science Coordinator
Prince William County Public Schools

# Implementing High-Quality Performance Assessments in Science: Webinar series


Webinar #1: Introduction to Performance Assessments

August 4, 2020




Webinar #2: Performance Assessments in Use

August 11, 2020

# Webinar agenda

- Welcome and overview (10 min)
- Project background: Implementing High-Quality Performance Assessments in Science (10 min)
- Performance assessments: What do research and experience tell us? (15 min)
- Introduction to the Virginia Quality Criteria Review Tool for Performance Assessments (10 min)
- Four-step process for implementing performance assessments (30 min)
- Next steps (10 min)

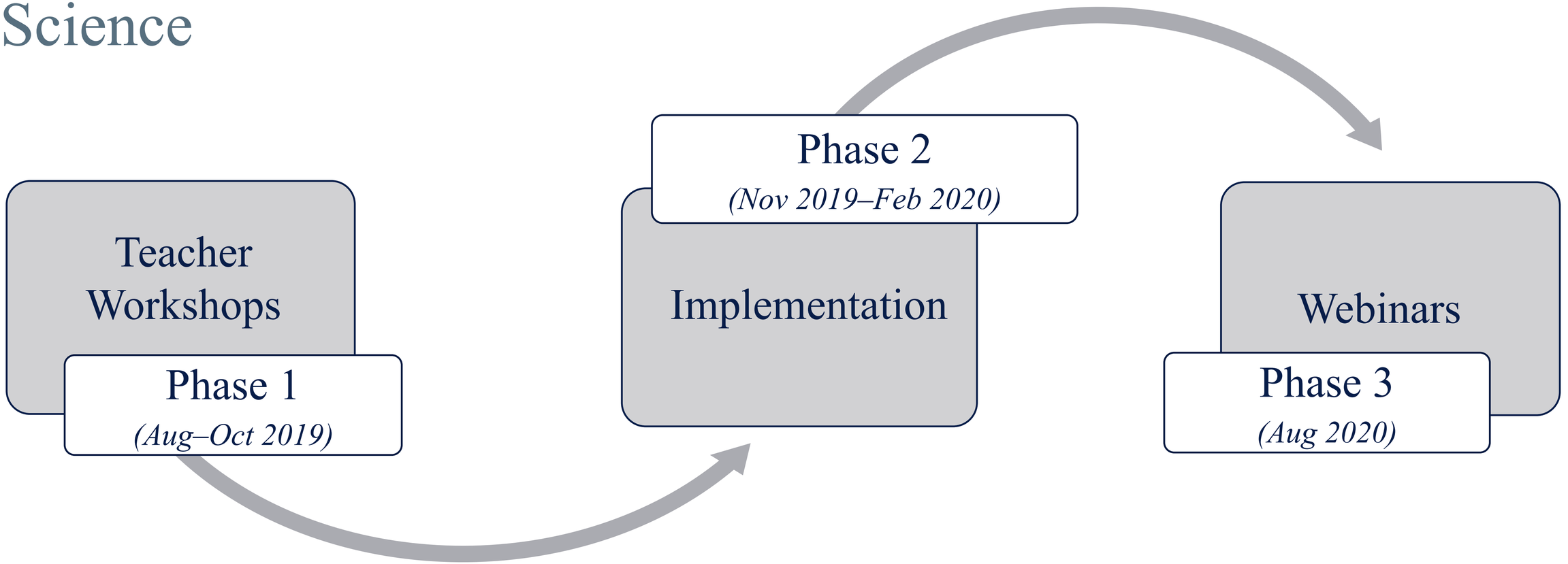
# Session goals

- Provide an overview of the evidence-based research related to implementing performance assessments.
- Improve educators' understanding of the *Virginia Quality Criteria Review Tool for Performance Assessment (Criteria Tool).*
- Support educators' use of the Criteria Tool to assess and improve performance assessments in science, using a four-step process.
- Hear from experienced educators to showcase exemplar implementation of performance assessments in science classrooms.

# Project Background: Implementing High-Quality Performance Assessments in Science

Kori Hamilton Biagas
Dissemination Specialist

# Implementing High-Quality Performance Assessments in Science

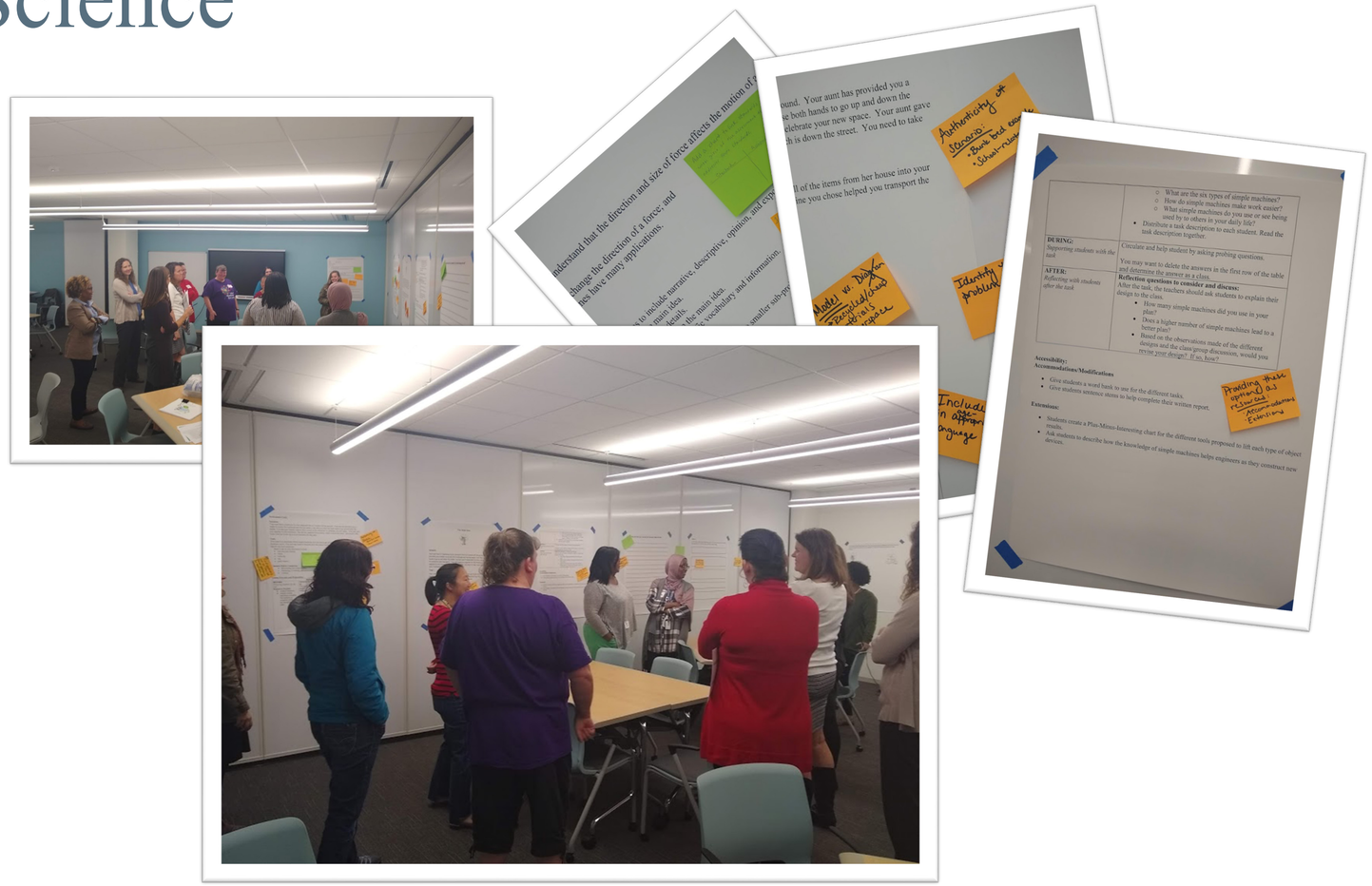



**Teachers as participants**

**Teachers as implementers**

**Teachers as presenters**

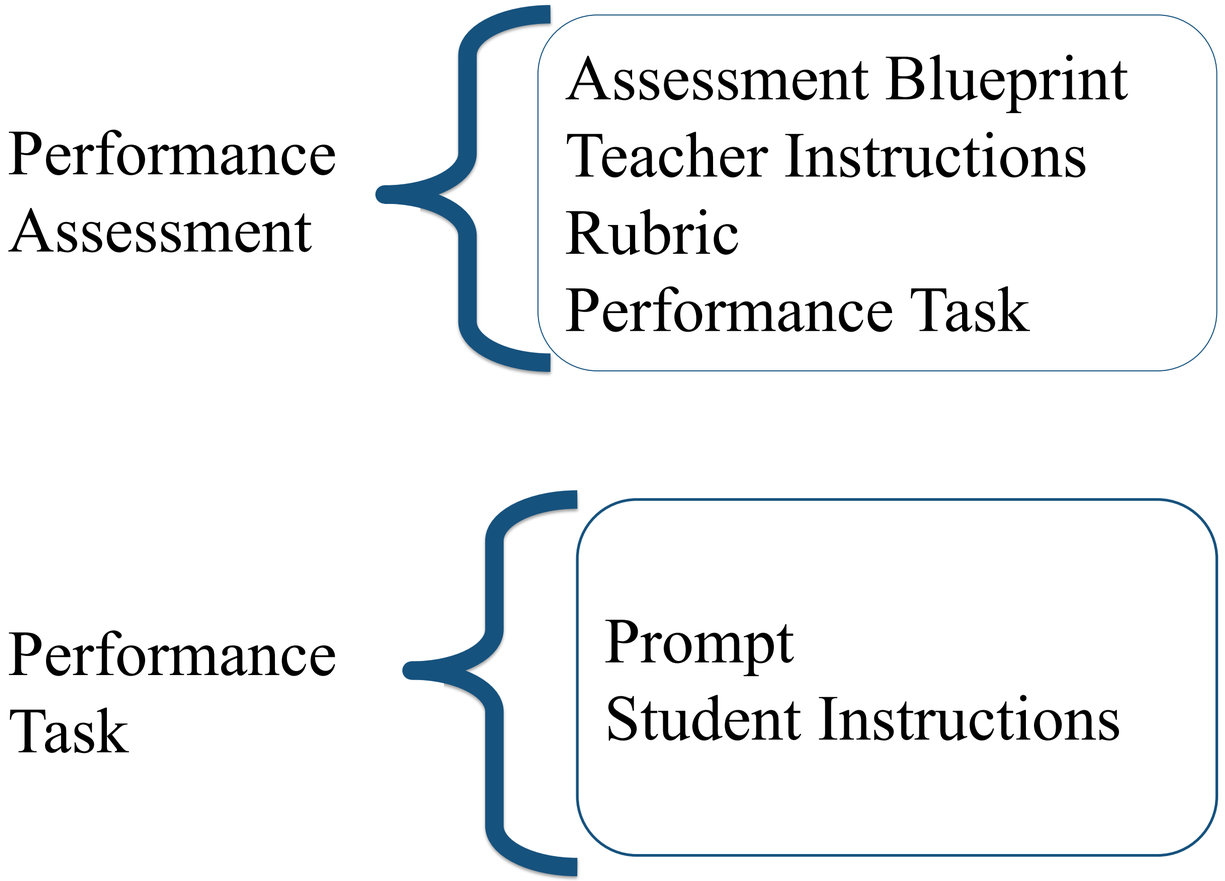
# Implementing High-Quality Performance Assessments in Science



# Performance Assessments: What Do Research and Experience Tell Us?

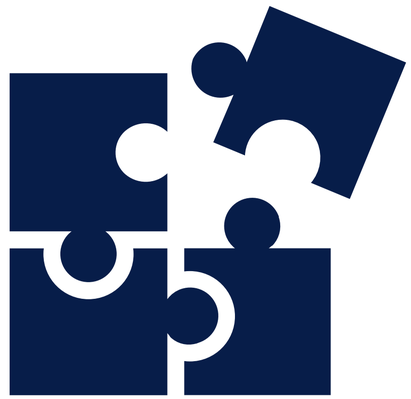
Jessica Bailey
Project Lead

# Defining performance assessments



# Components of a performance assessment

- Standards and learning expectations being assessed
- Relevant background information (grade, subject, title, materials list)
- Performance task(s), including any specific directions for students
- Administration information
- Teacher instructions
- Rubric for scoring

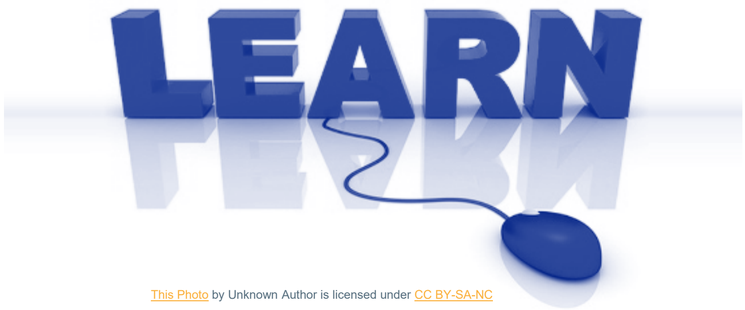


# Performance assessment examples

- An **essay** or **report** about the impact of poor water quality on the local community.
- A group **project** that outlines a plan for renovating a school to accommodate more students using a budget and other constraints.
- A **demonstration** that shows how simple machines can move objects from one place to another.
- A **performance** or **movie** about how gravity and mass are related.
- A **journal, student log,** or **video diary** documenting student observations of environmental issues in their communities and potential solutions.
- A **project** in which students design, build, and test an engineering solution, for example, a solar oven or a rubber band car.

# When to use a performance assessment

- A performance assessment can be used to evaluate skills other than content knowledge:
  - Higher-order thinking skills (e.g., critical thinking, problem solving).
  - Interpersonal skills (e.g., collaboration, effective communication).
  - Intrapersonal skills (e.g., motivation, persistence, learning to learn).
  - Scientific skills and practices (e.g., planning and carrying out an investigation, analyzing and interpreting data).



# Research on performance assessment

Research suggests performance assessments can:

- Support changes in instructional practice.[1]
  - Help teachers develop strategies that deepen students' critical thinking and problem solving.[2]
  - Increase use of complex problem solving and reasoning in the classroom.[3]
- Increase students' academic and interpersonal skill development, engagement, and postsecondary success.[4]
- Strengthen students' complex conceptual understandings.[5]
  - For example, problem solving or decisionmaking performance tasks that require synthesizing information.

# Experience with performance assessments

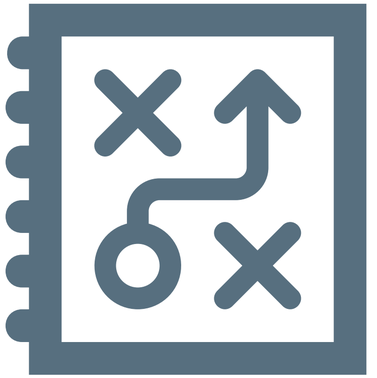
Tell us about your experiences with performance assessments in the chat:

- What was the topic and grade level for your performance assessment?
- What have you found challenging about implementing a performance assessment?
- What have you found beneficial about implementing a performance assessment?

# Benefits of performance assessment in practice

- Assess complex standards and skills
- Engage students
- Support personalization
- Build authentic experiences
- Provide formative and summative feedback

# Factors to consider



- May take extra time to administer
- Requires significant teacher preparation
- Can be time consuming to score/evaluate student performance

# Performance assessment supports for educators

Look for:

- Performance assessment repositories
- Standards-aligned rubrics
- Teacher professional development



Connect with:

- Local education agencies
- State education agencies
- Schools and fellow teachers

# Introduction to the Virginia Quality Criteria Review Tool for Performance Assessments

Anne Petersen
Science Coordinator
Virginia Department of Education

# Virginia Department of Education (VDOE) supports

## VDOE performance assessment supports

- Virginia Quality Criteria Review Tool for Performance Assessments (Criteria Tool)
- Common Rubrics
- Exemplar Performance Tasks

## VDOE science supports

- Sample grade 3, grade 6, and chemistry performance tasks/assessments
- VDOE Common Rubrics
- Student rubrics for grades K–2 and 3–5
- Teacher guide to using the rubrics

# Virginia Quality Criteria Review Tool for Performance Assessments

The Virginia Quality Criteria Review Tool for Performance Assessments details a set of criteria for performance assessments that measure the application of content knowledge and skills. The criteria are designed to support comparability in rigor and quality across the state.

- Briefly, the seven criteria include:
  1: Standards/Intended Learning Outcomes
  2: Authenticity
  3: Language Use for Expressing Reasoning
  4: Success Criteria for Students
  5: Student Directions, Prompt, and Resources/Materials
  6: Accessibility
  7: Feasibility

# Criterion 1: Standards/Intended Learning Outcomes

- 1A: Alignment to Virginia Standards of Learning (SOL)
- 1B: Cognitive complexity
- 1C: Deeper learning competencies / Life-Ready competencies defined by the Profile of a Virginia Graduate

# Criterion 2: Authenticity

- Relevant to the real-world, students' community, students' interests, future careers, or other meaningful context.
- Authentic to the discipline (i.e., what adult practitioners of the discipline do)

# Criterion 3: Language Use for Expressing Reasoning

- 3A: Supports language use and development through multiple means of accessing and using academic and disciplinary language
- 3B: Requires students to use one or more forms of language - text, video, audio, oral OR use multiple means of expression and language production

# Criterion 4: Success Criteria for Students

- 4A: Includes a rubric or other appropriate scoring tools (e.g., checklist, analytic rubric)
- 4B: Clear and concise, audience-friendly language, can be used to provide feedback
- 4C: Common vs. task-specific rubric within a course; communicates a consistent set of expectations

# Criterion 5: Student Directions, Prompt, and Resources/Materials

- 5A: Prompts, directions, resources aligned to learning outcomes, task purpose, performance outcomes
- 5B: Clear, complete, accessible, developmentally appropriate language
- 5C: Sensitive to community and free of bias

# Criterion 6: Accessibility

- 6A: Accommodates participation of all students; appropriate supports or alternatives for accessibility
- 6B: Accessible and differentiates ways to demonstrate learning

# Criterion 7: Feasibility

- 7A: Student-facing prompts, teacher directions, materials, scoring tools are included; realistic and accessible to teachers
- 7B: Duration is indicated and realistic
- 7C: Multi-lesson tasks include implementation plan and instructional context

# Virginia Quality Criteria Review Tool – Shorthand for Quality Levels

- **0 - No Evidence** *[No elements are met]*
- **1 - Limited Evidence** *[One element is met]*
- **2 - Partial Evidence** *[A few but not all elements are met]*
- **3 - Full Evidence** *[All elements are met]*

*These levels may be interpreted differently based on the criterion. Be careful to discriminate between "and," "or," and "may" when evaluating the criterion.*

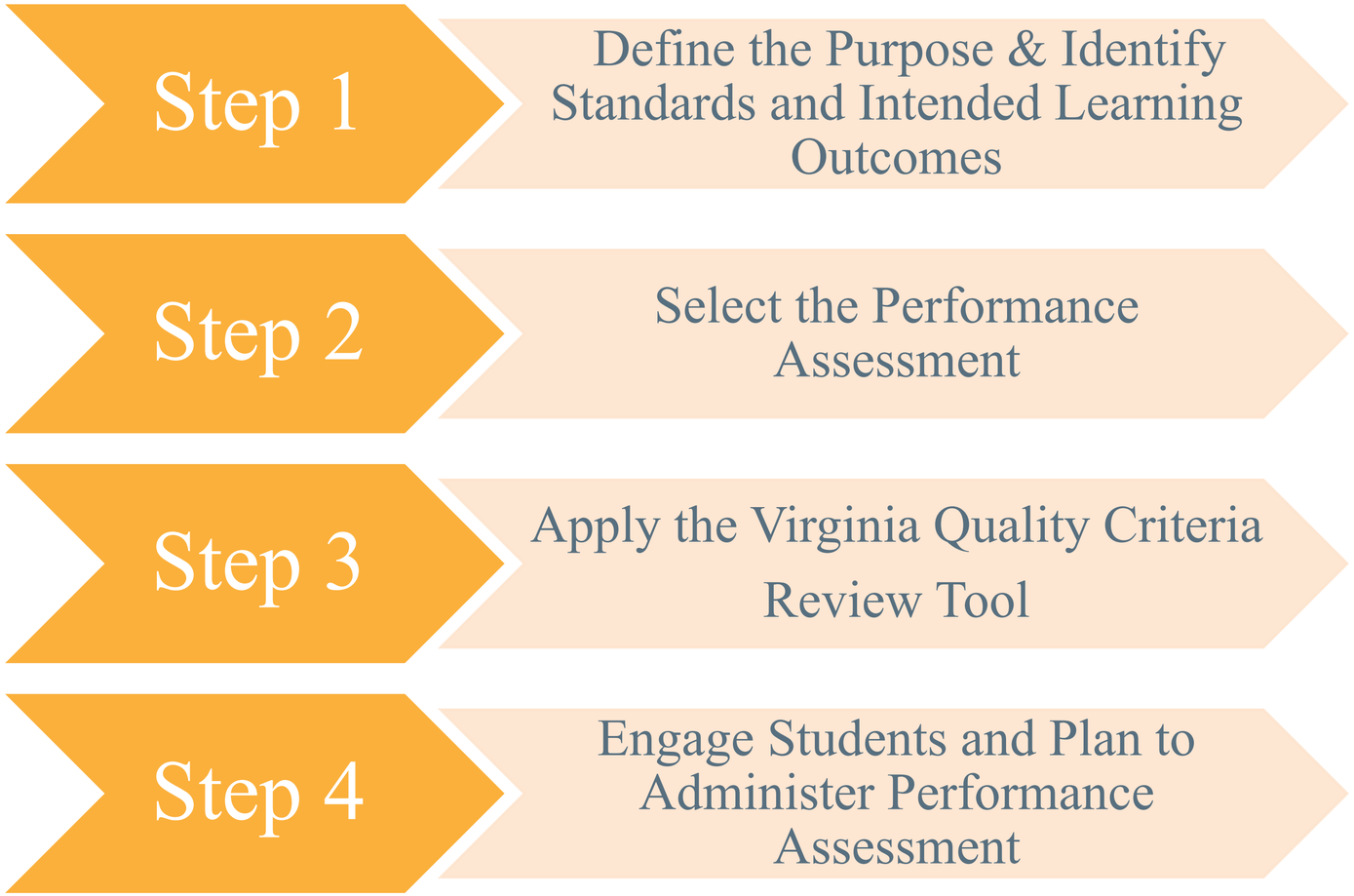
# Four-Step Process for Identifying and Using Performance Assessments


Carmen Araoz
Project Manager

Carrie Roop
Prince William County Schools
Science Teacher

Erin Lowery
Prince William County Schools
Science Teacher

# Four-step process for identifying and using performance assessments

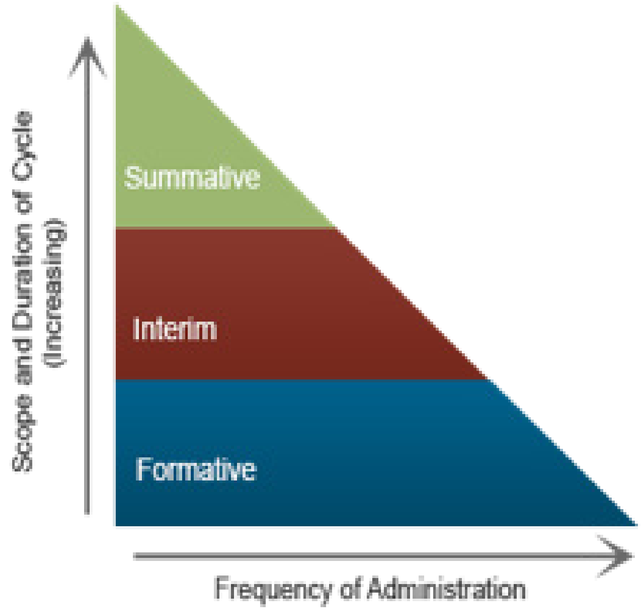


# Four-step process for identifying and using performance assessments

Step 1

**Step 1: Define the Purpose & Identify Standards and Intended Learning Outcomes** addresses the following questions:

- Who is being assessed?
- Why do I need to assess students at this time?
- What is being assessed?



# Four-step process for identifying and using performance assessments

Step 1



Science for Oceanography
Grade 5
Carrie Roop



Human Impact on Watersheds
Grade 6
Erin Lowery

# Four-step process for identifying and using performance assessments

Step 2

**Step 2: Select the Performance Assessment** focuses on finding a suitable performance assessment for students to demonstrate the knowledge and skills identified in step 1.

Be sure to determine the quality and relevance of a performance assessment before investing significant amounts of time and effort tailoring the content.

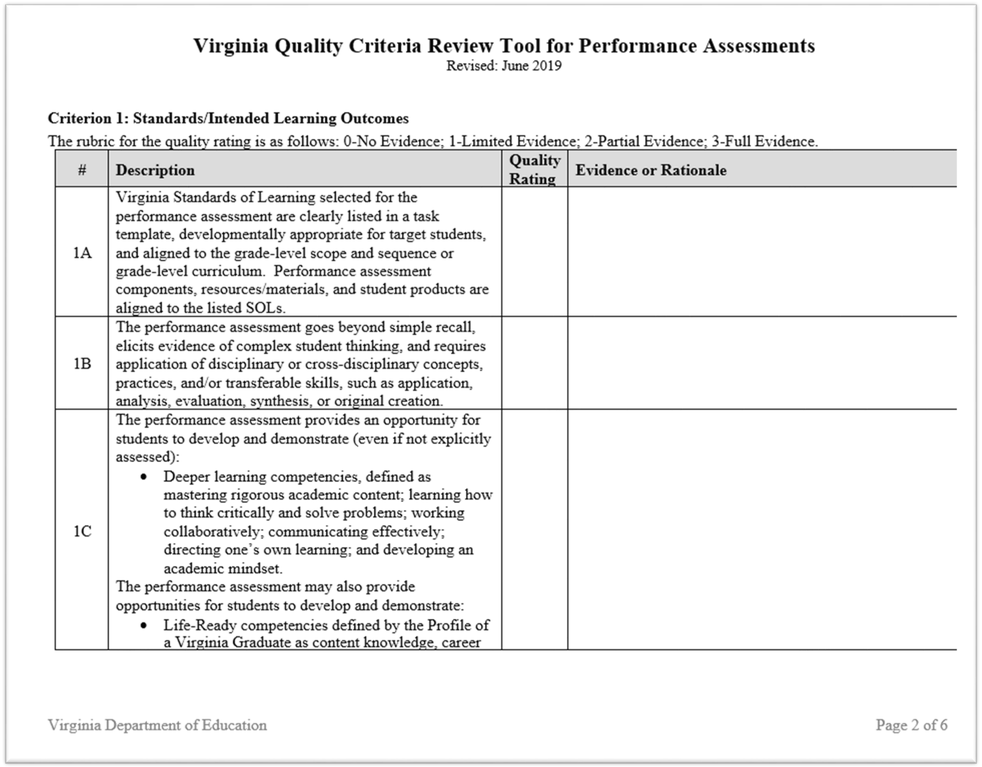
| Performance Assessment Checklist | YES | NO |
|---|---|---|
| The task aligns to the standards and intended learning outcomes that you intend to assess | ☐ | ☐ |
| The topic is relevant to students' reality/experience, and tasks are authentic to the discipline. | ☐ | ☐ |
| Multiple pathways for students to express their knowledge and communicate reasoning are present. | ☐ | ☐ |
| The rubric or scoring tool is included. | ☐ | ☐ |
| The performance assessment is designed to include all students with differentiated ways to demonstrate knowledge. | ☐ | ☐ |
| Resources and materials are realistic and easily accessible. | ☐ | ☐ |

# Four-step process for identifying and using performance assessments

Step 2

# Four-step process for identifying and using performance assessments

Step 3



**Virginia Quality Criteria Review Tool for Performance Assessments**
Revised: June 2019

**Criterion 1: Standards/Intended Learning Outcomes**

The rubric for the quality rating is as follows: 0-No Evidence; 1-Limited Evidence; 2-Partial Evidence; 3-Full Evidence.

| # | Description | Quality Rating | Evidence or Rationale |
|---|---|---|---|
| 1A | Virginia Standards of Learning selected for the performance assessment are clearly listed in a task template, developmentally appropriate for target students, and aligned to the grade-level scope and sequence or grade-level curriculum. Performance assessment components, resources/materials, and student products are aligned to the listed SOLs. | | |
| 1B | The performance assessment goes beyond simple recall, elicits evidence of complex student thinking, and requires application of disciplinary or cross-disciplinary concepts, practices, and/or transferable skills, such as application, analysis, evaluation, synthesis, or original creation. | | |
| 1C | The performance assessment provides an opportunity for students to develop and demonstrate (even if not explicitly assessed):<br>• Deeper learning competencies, defined as mastering rigorous academic content; learning how to think critically and solve problems; working collaboratively; communicating effectively; directing one's own learning; and developing an academic mindset.<br>The performance assessment may also provide opportunities for students to develop and demonstrate:<br>• Life-Ready competencies defined by the Profile of a Virginia Graduate as content knowledge, career | | |

Virginia Department of Education Page 2 of 6

**Step 3: Apply the Virginia Quality Criteria Review Tool** (Appendix A of the participant workbook) focuses on rating your selected performance assessment.

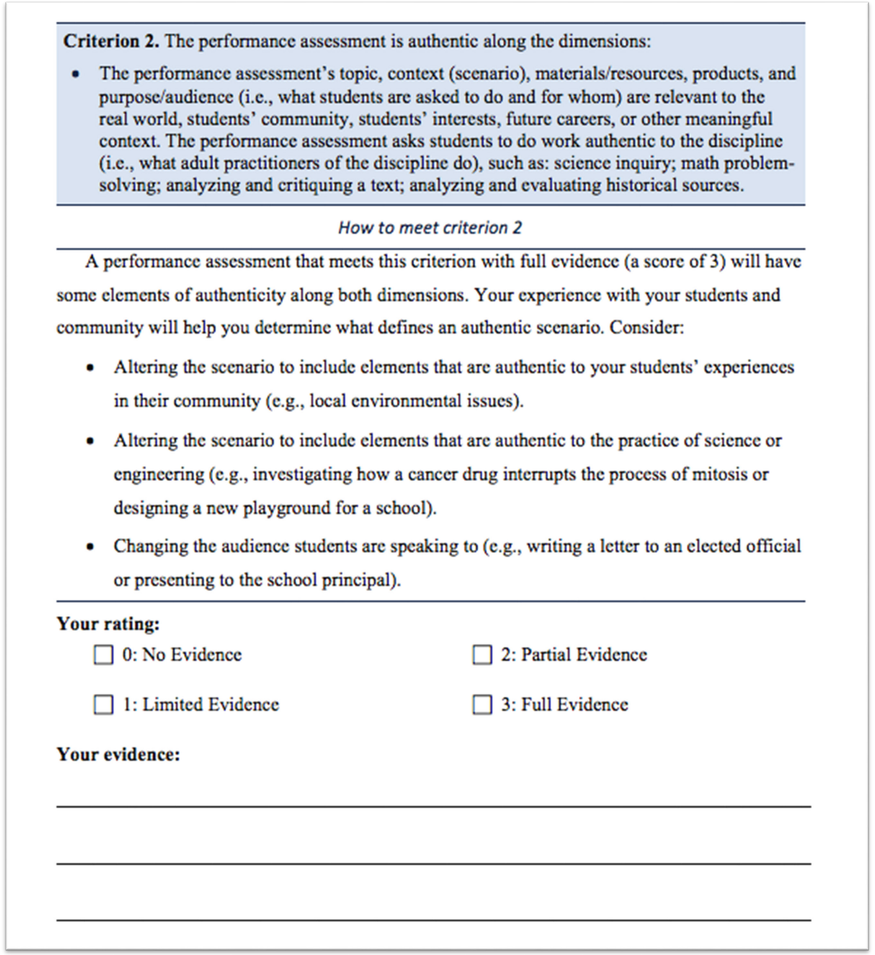
Applying the Quality Criteria tool will help to ensure that your performance assessment is of high quality. The tool may assist you in improving and revising the assessment.

# Four-step process for identifying and using performance assessments

Step 3

To apply the Quality Criteria Tool consider:

- The evidence from the assessment to provide your rating.
- How you can meet the criterion by modifying the assessment.



**Criterion 2.** The performance assessment is authentic along the dimensions:

- The performance assessment's topic, context (scenario), materials/resources, products, and purpose/audience (i.e., what students are asked to do and for whom) are relevant to the real world, students' community, students' interests, future careers, or other meaningful context. The performance assessment asks students to do work authentic to the discipline (i.e., what adult practitioners of the discipline do), such as: science inquiry; math problem-solving; analyzing and critiquing a text; analyzing and evaluating historical sources.

*How to meet criterion 2*

A performance assessment that meets this criterion with full evidence (a score of 3) will have some elements of authenticity along both dimensions. Your experience with your students and community will help you determine what defines an authentic scenario. Consider:

- Altering the scenario to include elements that are authentic to your students' experiences in their community (e.g., local environmental issues).
- Altering the scenario to include elements that are authentic to the practice of science or engineering (e.g., investigating how a cancer drug interrupts the process of mitosis or designing a new playground for a school).
- Changing the audience students are speaking to (e.g., writing a letter to an elected official or presenting to the school principal).

**Your rating:**

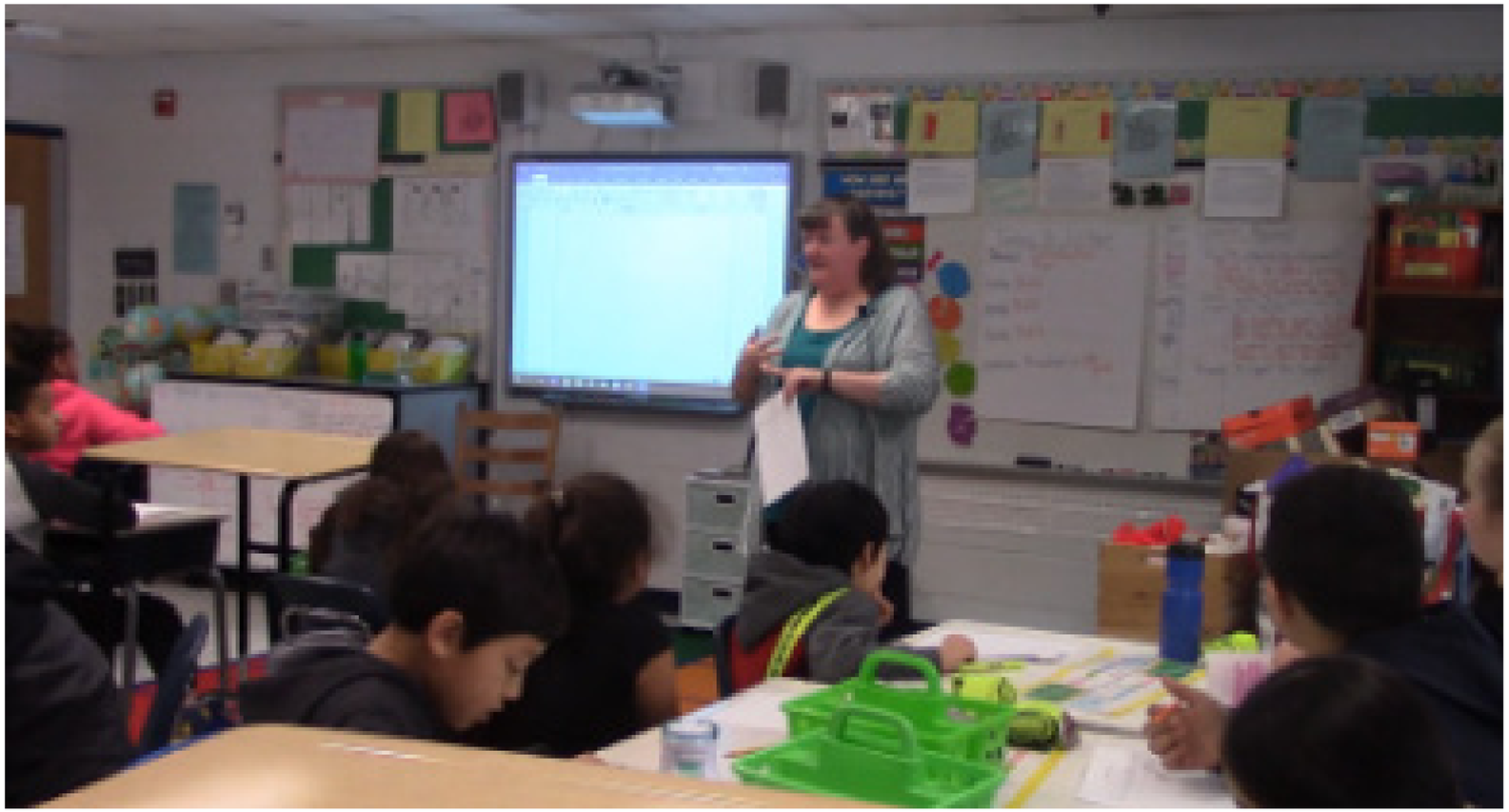
☐ 0: No Evidence ☐ 2: Partial Evidence

☐ 1: Limited Evidence ☐ 3: Full Evidence

**Your evidence:**

# Four-step process for identifying and using performance assessments

Step 3



# Four-step process for identifying and using performance assessments

Step 4

**Step 4: Engage Students and Plan to Administer Performance Assessment** focuses on ways students can be engaged in the assessment process and the preparation needed to implement a performance assessment.

This step addresses the questions:

- How can I ensure that students are actively engaged in the assessment process?
- How much time and what resources are adequate for the classroom assessment?

# Performance assessments vs traditional assessments

In the chat tell us:

- How does the four-step process align with how you would typically plan for classroom assessments?
- What aspects of the four-step process are similar or different to how you would typically implement a performance assessment in your classroom?

# Next Steps

Carmen Araoz
Project Manager

Emma Pellerin
Research Associate

# Questions?

# A few reminders

- Please complete the stakeholder feedback survey. This survey will be sent to all participants. https://sri.co1.qualtrics.com/jfe/form/SV_1XnzH1KiwVl9nYp
- Email Kori.HamiltonBiagas@sri.com for a professional development certificate by August 14, if required.
- Join us on August 11 from 1:30–3:00 p.m. EDT for the second webinar in this series!

# Webinar resources available at:

REL Resources

- REL Appalachia: Implementing High-Quality Performance Assessment in Science
  - Participant workbook
  - Coaching materials

- REL Northeast and Islands: Creating and Using Performance Assessments: An Online Course for Practitioners

Other Resources

- Virginia Department of Education Performance Assessments and Local Alternative Assessments resource page

# Sources cited


- Chung, G. K., & Baker, E. L. (2003). An exploratory study to examine the feasibility of measuring problem-solving processes using a click-through interface. *Journal of Technology, Learning and Assessment*, *2*(2).
- Darling-Hammond, L., & Wood, G. H. (2008). *Assessment for the 21st Century: Using performance assessments to measure student learning more effectively*. Stewart, OH: Forum for Education and Democracy.
- Faxon-Mills, S., Hamilton, L. S., Rudnick, M., & Stecher, B. M. (2013). *New assessments, better instruction?: Designing assessment systems to promote instructional improvement*. Los Angeles, CA: RAND Corporation.
- Foote, C. J. (2005). The challenge and potential of high-need urban education. *Journal of Negro Education*, *74*(4), 371–381.
- Hofman, P., Goodwin, B., & Kahl, S. (2015). *Re-balancing assessment: Placing formative and performance assessment at the heart of learning and accountability*. Denver: McREL International.
- Koretz, D., Mitchell, K., Barron, S., & Keith, S. (1996). *The perceived effects of the Maryland school performance assessment program*. Los Angeles, CA: Center for Research on Evaluation, Standards, and Student Assessment, University of California at Los Angeles.
- Lane, S., Parke, C. S., & Stone, C. A. (2002). The impact of a state performance-based assessment and accountability program on mathematics instruction and student learning: Evidence from survey data and school performance. *Educational Assessment, 8*(4), 279–315.
- McTighe, J. (2014). *Designing cornerstone performance tasks to promote meaningful learning and assess what matters most.* Retrieved from https://www.nsbsd.org/cms/lib01/AK01001879/Centricity/Domain/769/JaysMasterHandoutfor%20CAIM%202014.pdf
- Miller, A. (2020, April 29). *Summative assessment in distance learning.* Retrieved from https://www.edutopia.org/article/summative-assessment-distance-learning
- National Research Council. (2011). *Assessing 21st century skills: Summary of a workshop*. Washington, DC: National Academies Press.
- Parsi, A., & Darling-Hammond, L. (2015). *Performance assessments: How state policy can advance assessments for 21st century learning.* White Paper. National Association of State Boards of Education.

# Thank you!

https://ies.ed.gov/ncee/edlabs/regions/appalachia/

RELAppalachia@sri.com

@REL_Appalachia