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Thinking about Outcomes through the Lens of Assessment

A Four-Step Process

An AAC Professional Learning Module

Updated June 2020

AAC Member Content

Assessment is the process of gathering evidence of student learning.
But what learning are we assessing, and what should that evidence look like?

Before we design instruction and assessment activities, we need to ensure we understand the learner outcomes!

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In this learning module, we will consider a sample outcome through the lens of assessment, using the following 4 steps:

Step 1. What is the focus for assessment? (Pay attention to the verbs!)

Step 2. What assessment methods are appropriate?

Step 3. What background knowledge do students require?

Step 4. How can teachers support students?

A sample outcome to consider:

Mathematics (Shape and Space)

Describe, compare and construct 3-D objects, including:

- cubes
- spheres
- cones
- cylinders
- pyramids

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Step 1.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What is the focus for assessment?

Remember: Pay attention to the **verbs** or other directing words.

This helps us focus on what the **evidence of learning** needs to be.

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Step 1.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What is the focus for assessment?

- describe 3-D objects
- compare 3-D objects
- construct 3-D objects

These are the skills that are to be assessed.

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Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

Why is this **not** an appropriate way to assess any part of this outcome?

Connect each name to the correct 3-D object.

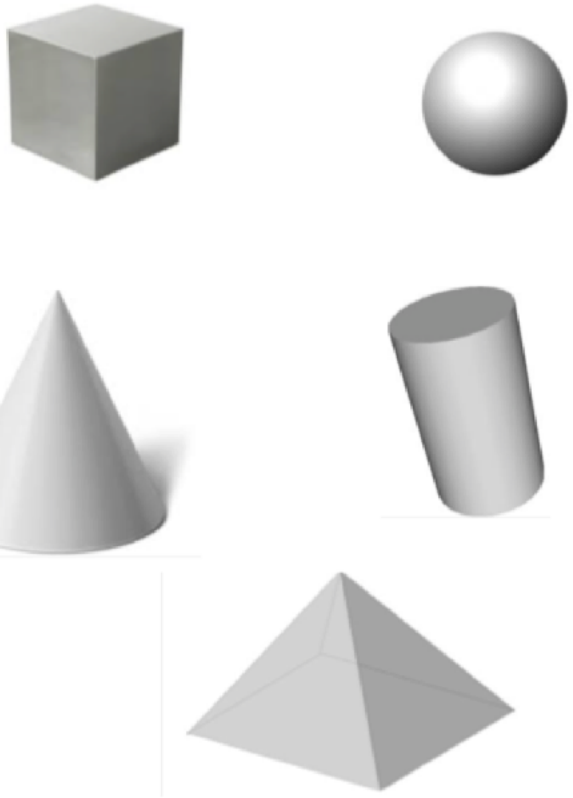
A. Cylinder

B. Cone

C. Sphere

D. Cube

E. Pyramid



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Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

The verbs matter!
Students are not describing, comparing, or constructing.

They are only identifying.

Connect each name to the correct 3-D object.

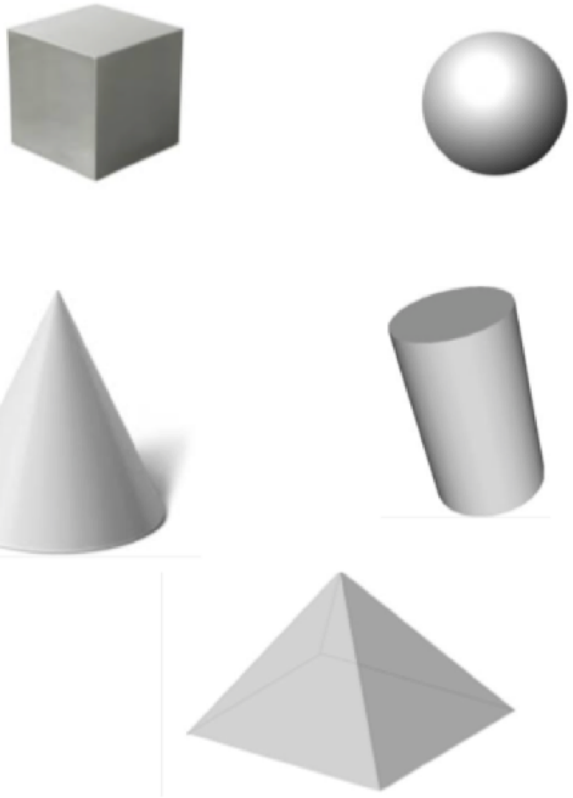
A. Cylinder

B. Cone

C. Sphere

D. Cube

E. Pyramid



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Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

Did you notice that these are 2-D pictures, **not** 3-D objects?

That matters, especially to young students.

Connect each name to the correct 3-D object.

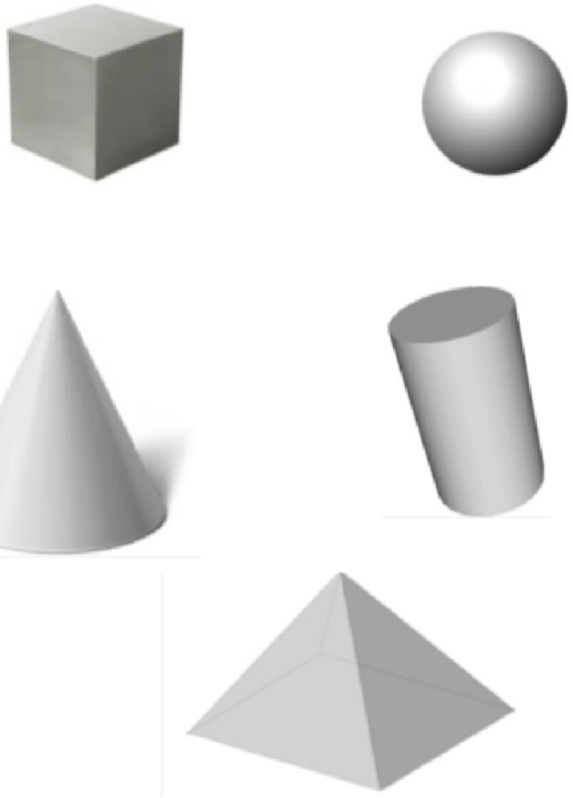
A. Cylinder

B. Cone

C. Sphere

D. Cube

E. Pyramid



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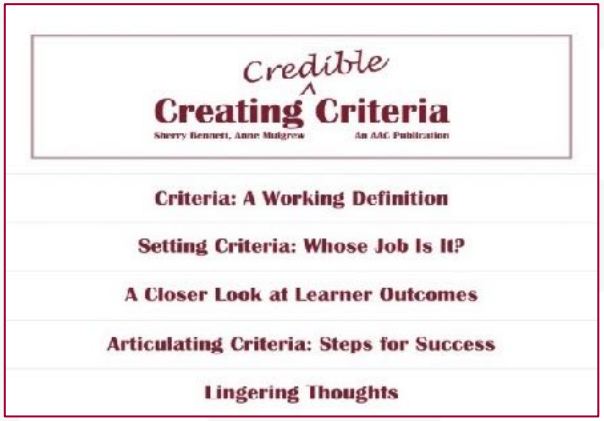
Keep Things in Perspective

- **Remember: The 'level of cognition' is only a means to an end.** What kind of thinking is required of students?
- ***Creating Credible Criteria*** **pp. 9 – 14**
  - definition of levels of cognition
  - sample outcomes (explicit)
  - sample outcomes (inferred)



- **Be on the lookout for other 'directing words' that shape the learning/assessment experience.**

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Step 2.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What assessment methods are appropriate?

- ☐ selected response
- ☐ written response
- ☐ product/performance
- ☐ observation
- ☐ conversation
- ☐ self-reflection

Some assessment methods are **more appropriate** than others!

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A brief reminder of assessment methods…

"Conventional" assessments:

Selected response:
e.g. multiple choice, matching, true/false

Here, students need to **recognize** the correct response.

Written response:
as short as a word or as long as several paragraphs

While here, students need to **create** their own response.

(May be used formatively **or** summatively.)

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A brief reminder of assessment methods…

Performance-based assessment:

Product / Performance

e.g. gymnastics routine, oral presentation
book report

Observations of students as they work

Conversations with students about their work

(May be used formatively **or** summatively.)

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A brief reminder of assessment methods…

Self-Reflection: always important, but *always* formative - not factored into the grade.

The most effective time for self-reflection is when there is **still time** to improve the work!

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Step 2.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What assessment methods are appropriate?

- ☐ selected response
- ☐ written response
- ☐ product/performance
- ☐ observation
- ☐ conversation
- ☐ self-reflection

So again, which methods would be appropriate for an outcome like this one?

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Step 2.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What assessment methods are appropriate?

- ☐ selected response
- ☑ written response
- ☐ product/performance
- ☐ observation
- ☑ conversation
- ☑ self-reflection

Describe and **compare** could be assessed through writing or conversation

(And self-reflection is **always** important!)

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Step 2.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What assessment methods are appropriate?

- ☐ selected response
- ☑ written response
- ☑ product/performance
- ☑ observation
- ☑ conversation
- ☑ self-reflection

Describe and **compare** could be assessed through writing or conversation

Construct requires product/performance and observation

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Step 2.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What assessment methods are appropriate?

- ☐ selected response
- ☑ written response
- ☑ product/performance
- ☑ observation
- ☑ conversation
- ☑ self-reflection

What's the problem with **selected response** (multiple choice), even for describe or compare?

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Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

Why is this **not** an appropriate method to assess this part of the outcome (describe)?

Outcome: Describe 3-D objects.

Test Item: Which object might have 1 square face, 4 triangular faces, and 5 vertices?

A. rectangular prism
B. rectangular pyramid
C. triangular prism
D. triangular pyramid

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Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

The verbs belong to the students!

Who is doing the describing here?

Outcome: Describe 3-D objects.

Test Item: Which object might have 1 square face, 4 triangular faces, and 5 vertices?

A. rectangular prism
B. rectangular pyramid
C. triangular prism
D. triangular pyramid

Students need to **demonstrate** the skill, not just recognize it!

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Step 3.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What background knowledge do students require?

Students need to know these things, so teachers may assess them formatively along the way.

But they are **not** included in the grade.

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Step 3.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

What background knowledge do students require?

- related vocabulary
- understanding of the verbs
- familiarity with 2-D shapes
- names of the 3-D objects

Students may think they are **comparing** two objects, when they are actually just **describing** them.

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Step 4.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

How can teachers support students?

It really is OK to support students! The art of providing **feedback** is to cause thinking, but not to do the work for the student.

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Step 4.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

How can teachers support students?

- model the skills of describing and comparing
- consider exemplars
- provide opportunities for practice and feedback

Provide support through **formative assessment** during instruction.

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Step 4.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

How can teachers support students?

- vocabulary support
- accept responses in different formats
- ask questions to probe for greater depth of response
- provide organizer

Even at the point of **summative assessment**, it's still OK to support students!

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Step 4.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

How can teachers support students?

- vocabulary support
- accept responses in different formats, when the format is not specified in the outcome
- ask questions to probe for greater depth of response
- provide organizer

If the format of the assessment (e.g. written) prevents some students from successfully demonstrating their understanding, change the format!

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Step 4.

Mathematics (Shape and Space)
Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, and pyramids.

How can teachers support students?

- vocabulary support
- accept responses in different formats
- ask questions to probe for greater depth of response
- provide organizer

Do you believe that a student knows more than they have demonstrated on a particular part of an assessment?

Have a conversation!

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Questions for Reflection

- If this 4-step process is utilized consistently, how might it support teaching, learning, and assessment in our school?
- How do we have conversations about assessment that “open the door” to changes in our practice?

Try your hand with this outcome (or choose an outcome of your own)

Phys Ed 4: Follow rules, routines and procedures for safety in a variety of activities.

Step 1. What is the focus for assessment?	**Step 2.** What assessment methods are appropriate?
Step 3. What background knowledge do students require?	**Step 4.** How can teachers support students?

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Try your hand with this outcome (or choose an outcome of your own)

Phys Ed 4: Follow rules, routines and procedures for safety in a variety of activities.

Step 1. What is the focus for assessment? **Follow** rules, routines and procedures	**Step 2.** What assessment methods are appropriate? Student performance, observation, self-reflection
Step 3. What background knowledge do students require? What ***are*** the rules, routines and procedures?	**Step 4.** How can teachers support students? Many, many possibilities to discuss here!

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CAUTION: Don't differentiate your students out of the curriculum!

Phys Ed 4: Follow rules, routines and procedures for safety in a variety of activities.

Non-Example Rubric:

Excellent	Proficient	Adequate
Follows, and supports others in following, rules, routines and procedures for safety.	Follows rules, routines and procedures for safety.	Identifies rules, routines and procedures for safety.

- Where does this rubric get off track?

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CAUTION: Don't differentiate your students out of the curriculum!

Phys Ed 4: Follow rules, routines and procedures for safety in a variety of activities.

Non-Example Rubric:

Excellent	Proficient	Adequate
Follows, and supports others in following, rules, routines and procedures for safety.	Follows rules, routines and procedures for safety.	Identifies rules, routines and procedures for safety.

- Where does this rubric get off track?

A student who can identify the rules, but is not following them, is **not** achieving this outcome at an adequate level.

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CAUTION: Don't differentiate your students out of the curriculum!

Phys Ed 4: Follow rules, routines and procedures for safety in a variety of activities.

Non-Example Rubric:

Excellent	Proficient	Adequate
Follows, and supports others in following, rules, routines and procedures for safety.	Follows rules, routines and procedures for safety.	Identifies rules, routines and procedures for safety.

- Where does this rubric get off track?

As well, students should not be required to achieve **beyond** what is required by the curriculum in order to get the top grade.

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A better tool for this outcome:

Phys Ed 4: Follow rules, routines and procedures for safety in a variety of activities.

Criteria	Fully Met	Somewhat Met	Not Yet Met	Notes/ Next Steps
Consistently follows rules, routines and procedures for safety.				

(You don't always need a rubric!)

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Questions for Reflection

- Why is it important to have agreement on what rubric descriptors and percentage grades really mean?
- How *do* we challenge our students to achieve their very best, if we aren't "paying" them with higher grades?

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