# Sample Focused Mentoring Activity

**Focus Area(s):** Aligning assessments to content standards; Webb's Depth of Knowledge (DOK)

**Date**:

| | |
|---|---|
| **OBJECTIVES/ GOALS OF THE MEETING:**<br>Resident educator will understand the four levels of Webb's Depth of Knowledge. Resident educator and mentor will review sample content standards and assessment items to determine their depth of knowledge. | **ALIGNMENT TO STANDARDS**<br>**Ohio Standards for the Teaching Profession:**<br>2<br>**RE Mentor Standards:**<br>2, 4<br>**Other:** |
| **Introduction**:<br>Formative and summative assessment must be aligned to the content standards. This ensures that the assessment data is valid and can help guide instruction. When you consider alignment, it is necessary to not only determine the content and skills of each standard but also the depth of knowledge (DOK) of each. | **Common Language/ Terms/ Acronyms:**<br>Alignment; Depth of Knowledge<br><br>**Resources:**<br>Handout 1: Example Content Standards; Handout 2: Four Levels of Webb's Depth of Knowledge; Handout 3: Questions for Webb's Depth of Knowledge |

## Activity Description/ Conversation Questions/ Content

Before moving to a discussion on Webb's Depth of Knowledge, the mentor will ask the resident educator to identify the skill(s) and the content included in the standards listed on Handout 1. Remind the resident educator that the skills are what the students should be able to do [the verb(s) in the standard] and the content is what the students should know.

To ensure that the evidence of student learning gathered from both formative and summative assessments is accurate, teachers must be sure that assessment items not only align to the content and skills of the standards, but also to the complexity and depth of understanding expected in the standards. This is depth of knowledge (DOK). It takes into consideration not only the verb(s) in the standard, but what comes after the verb(s).

There are four depth of knowledge levels. You can define them by asking two questions:
1. How deeply do the students need to understand the content to perform the task?
2. How deeply are the students interacting with the material?

Mentor and resident educator will discuss the four depth of knowledge levels using Handout 2 as a guide. Then they will return to Handout 1 to complete the alignment portion. The mentor can use the I Do, We Do, You Do strategy to help the resident educator determine if there is proper alignment between the content standards and assessment items on Handout 1. (I Do: Mentor models the process using the first standard and assessment item; We Do: mentor and resident educator complete the process together using the second standard and assessment item; You Do: resident educator completes the process using the third standard and assessment item.)

Following the alignment discussion, mentor will give the resident educator a copy of Handout 3: Question Stems for Webb's Depth of Knowledge. Resident educator can use this resource to develop formative and summative assessment items aligned to depth of knowledge.

# Sample Focused Mentoring Activity

Consider taking notes to use in future professional dialogues

### Reflection and/or evidence of learning:

Following this session, the resident educator will be able to identify the depth of knowledge level of his or her content standards. Resident educator will begin to understand the instructional implications when first considering alignment of assessment items to depth of knowledge. With further practice, the resident educator will purposely include various depth of knowledge levels on future assessments and thereby adjust instruction to meet them.

### Reflection Questions:

Did you find it easy or difficult to identify the depth of knowledge level of the sample standards? Why?
What are the benefits of ensuring proper alignment of content standards to assessment items? What are some of the instructional implications when considering alignment to depth of knowledge?
How might all students benefit when you provide opportunities for learning at various depth of knowledge levels?

### Follow up:

Set a date for a follow-up meeting. The resident educator will bring an upcoming assessment so that the mentor and resident educator can review it for alignment to depth of knowledge. Mentor and resident educator will work together to make revisions to the assessment as needed.

### Notes:

## Handout 1: Sample standards for alignment review

**Standard: K.G2: Correctly name shapes regardless of their orientations or overall size.**

Content:

_____

_____

Skill(s):

_____

_____

Depth of knowledge level:

Assessment item:



- Show me the triangle
- Show me the pentagon
- Show me the cylinder

Questions for discussion:
1. Is the assessment item above aligned to the DOK level of the standard?
2. If not, how might you revise it to be aligned?

**Standard: 3.L.41: Use sentence-level context as clues to the meaning of a word or phrase.**

Content:

_____

Skill(s):

_____

Depth of knowledge level:

Assessment item:
Aaron decided to complete in a _decathlon_. What is a
_decathlon_?
Questions for discussion:
1. Is the assessment item above aligned to the DOK level of the standard?
2. If not, how might you revise it to be aligned?

Reference: Sample Standards and Assessment Items: Battelle for Kids Assessment Literacy Training 2013

**Handout 1: Sample standards for alignment review**


**Standard: Analyze the causes and consequences of major political, economic and social developments on the Dust Bowl.**

Content:

_____

Skill(s):

_____

Depth of knowledge level:

Assessment item:
Which of the following areas was most associated with "the Dust Bowls" of the 1930s?



a. Area marked A
b. Area marked B
c. Area marked C
d. Areas marked by D and E

Questions for discussion:
1. Is the assessment item above aligned to the depth of knowledge level of the standard?
2. If not, how might you revise it to be aligned?

## Handout 2: Webb's Depth of Knowledge

**Level 1: Routine thinking; recall and reproduction. (Think the game show *Jeopardy*.)**
- Recall a fact, term, principle, concept, or perform a routine procedure.
- Follow a well-known rule, procedure or formula.
- The answer is either right or wrong.

Examples of Level 1 assessment items:
1. Name the parts of a cell.
2. Based on the U.S. Constitution, which development would cause a state to gain representation in the House of Representatives?

**Level 2: Conceptual thinking; basic application (Think the TV show *Hell's Kitchen*)**
- Use of information
- Select appropriate procedures
- Usually multiple steps
- Routine problems
- Apply 2+ concepts
- Make limited decisions
- One right answer or approach

Examples of Level 2 assessment items:
1. Write a paragraph summarizing the main ideas of the text.
2. Nora is running a race that is 26.2 miles. She is running at a speed of 8 miles per hour. She has completed three quarters of the race. How much longer will it take Nora to finish the race?

**Level 3: Strategic thinking; Higher Level Application (Think the TV show *Survivor)***
- Requires reasoning
- Developing a plan to approach a problem
- Non-routine
- Involves making a claim and providing supporting evidence = "Back it up, Jack!"
- Often more than one possible approach or answer
- More student led

Examples of Level 3 assessment items:
1. Is toothpaste a solid or a liquid?  Conduct the following experiment, collect and analyze the data, make a claim and support your claim with evidence.
2. Make a booklet about five rules you see as important. Convince others.

**Level 4: Extended thinking; real-world application (Think the TV show *Shark Tank)***
- Requires time to research, problem solve and process multiple conditions of a task
- An original investigation or application to the real world
- Requires significant conceptual understanding and application of skills across disciplines
- Often more than one possible approach or answer
- Multiple sources
- Mostly student led

Reference: Webb's Depth of Knowledge: http://www.karin-hess.com/cognitive-rigor-and-dok. Retrieved September 7, 2017.

## Handout 2: Webb's Depth of Knowledge

Examples of Level 4 assessment items:

1. Conduct an internship in industry where students are faced with real-world, unpredictable problems.
2. You're hosting Thanksgiving this year. You will need to plan a dinner to feed 20 people and a three-course meal for under $10 per person that you can prepare in six hours or less. One guest is a vegetarian, one is on a gluten-free diet, two are diabetic and one is allergic to tree nuts. All your guests should be able to enjoy each dish you serve. Be prepared to explain the choices you made.

Reference: Webb's Depth of Knowledge: http://www.karin-hess.com/cognitive-rigor-and-dok. Retrieved September 7, 2017.

## Handout 3: Webb's Depth of Knowledge Question Stems

| Level 1 – Recall and Reproduction: | Level 2 – Skills and Concepts: |
|---|---|
| Can you recall ___? <br> When did ___happen? <br> Who was ___? <br> How can you recognize ___? <br> What is ___? <br> How can you find the meaning of? ___ <br> Can you recall ___? <br> Can you select ___? <br> How would you write ___? <br> What might you include on a list about ___? <br> Who discovered ___? <br> What is the formula for ___? <br> Can you identify ___? <br> How would you describe ___? | How or why would you use .___? <br> Can you explain how ___affected ___? <br> How would you compare ___ and ___? <br> What examples/non-examples can you find to .___? <br> How would you organize___ to show ___.? <br> How could you show your understanding of ___? <br> What approach/tools would you use to ___? <br> How would you apply what you learned to develop ___? <br> What other way could you solve or find out ___? <br> What is your prediction ... and why? <br> How would you organize these facts and observations? <br> If you changed the elements ___, what would happen? <br> What facts are relevant to show ___? <br> What questions would you ask to interview or survey about ___?  What question is being asked in this problem? <br> What steps are needed to edit?  How would you estimate ___? |
| **Level 3 – Strategic Thinking and Reasoning:** | **Level 4 – Extended Thinking:** |
| What changes would you make to solve or address this major problem or issue: ___? <br> How would you improve upon this invention or innovation? Can you propose an alternative solution? <br> What could be done to minimize (maximize) ___? <br> In what way would you design or redesign ___ and why? <br> What evidence would you cite to defend the actions of ___? <br> How would you evaluate ___ ? <br> How would you prioritize criteria for making this (local zoning) decision and why? <br> How would you evaluate the works by this author over time? <br> Can you formulate and test a conjecture for___? <br> Can you predict the potential benefits and drawbacks if this law does or does not pass? <br> Can you construct a model that would change ___.? <br> Can you think of an original way to apply ___? <br> Do you agree with the actions ___? with the outcomes __ ? with the decision to .___? <br> How would you prove ... or disprove ...? <br> Can you assess the value or importance of .___? <br> What information would you use to support a__? Or a differing perspective? | Write a thesis, drawing conclusions from multiple sources. <br> Design and conduct an experiment. Gather information to develop  alternative explanations for the results of an experiment. <br> Write a research paper on a topic. <br> Apply information from one text to another to develop a persuasive  argument. <br> What information can you gather to  support your idea about <br><br> _____ <br> ? <br><br><br> Level 4 depth of knowledge would most likely be the writing of  a research paper or applying information from one text to another text to develop a persuasive argument. <br><br> **DOK 4 requires time for extended thinking.** |

Reference: DOK Question Stems: http://www.karin-hess.com/cognitive-rigor-and-dok. Retrieved September 7, 2017.