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**Webb's Depth of Knowledge: Transitioning to
the 2014 GED® Test**

December 2012

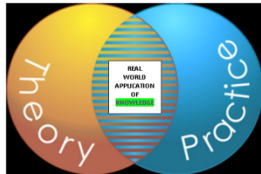
» Outline of today's webinar

Today's webinar includes:

- Information on Webb's Depth of Knowledge (DOK)
- Sample questions and DOK levels from the Item Samplers
- Beginning strategies for implementing DOK in the classroom



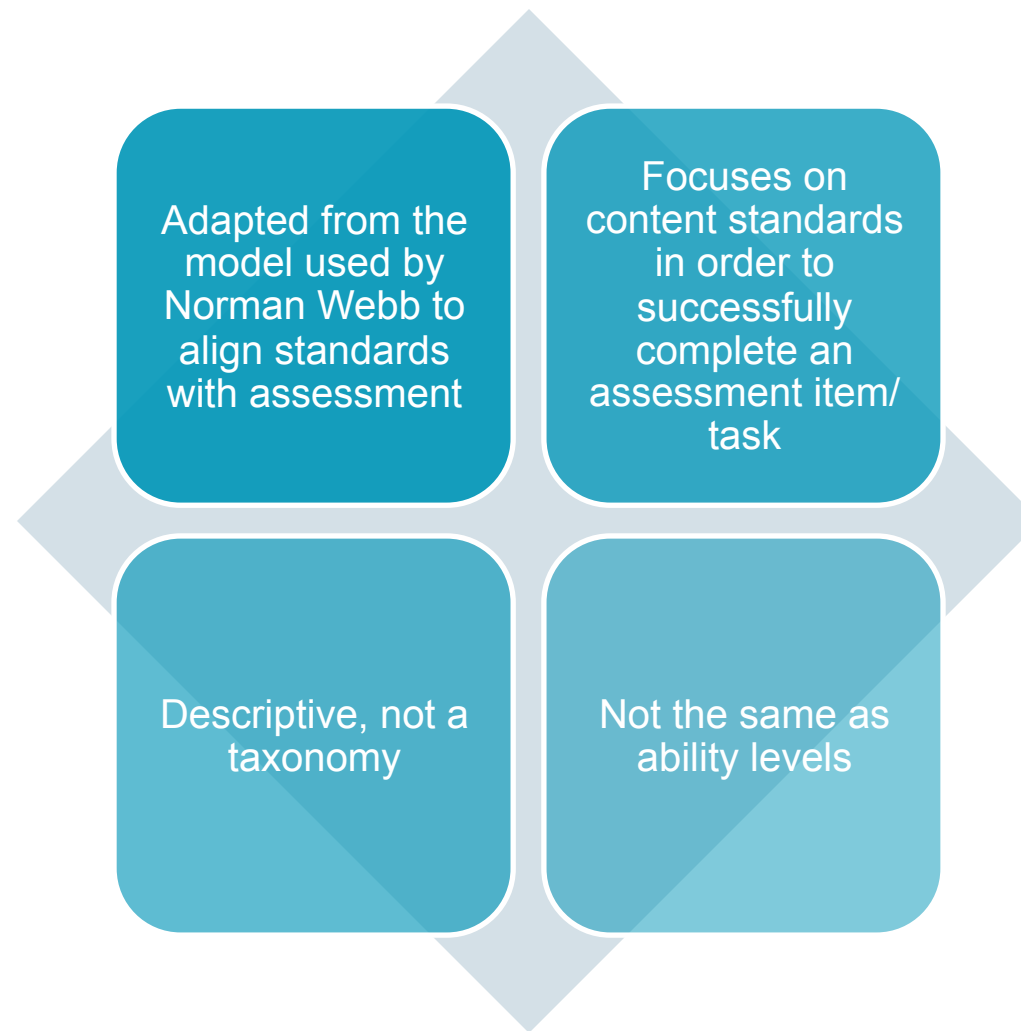
» Today's learning objectives



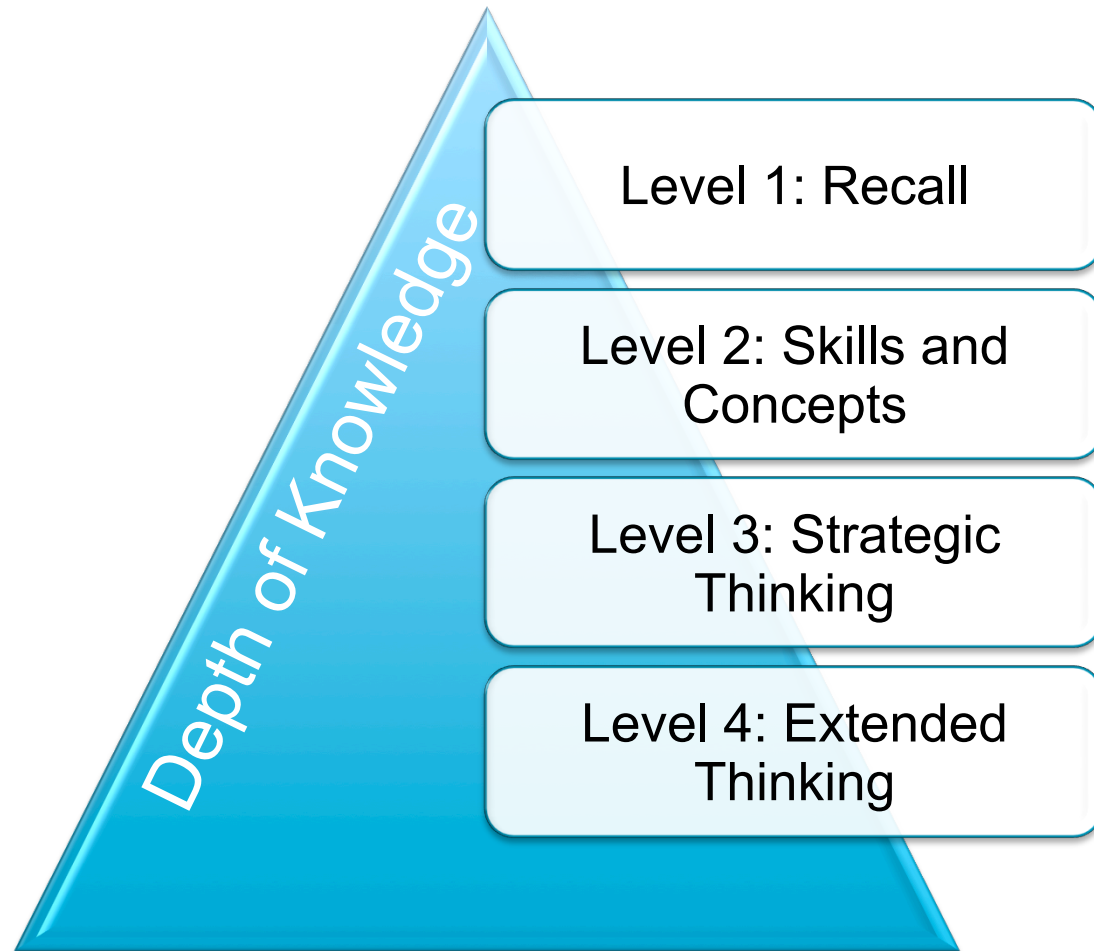
- Understand the concept of Webb's Depth of Knowledge (DOK)
- Discriminate between difficulty and complexity
- Identify tasks related to each DOK level
- Gain insight into how you can begin to apply the information to build on instructional approaches



» What is Depth of Knowledge (DOK)?



» Webb's Depth of Knowledge Model



» DOK is not about difficulty

Difficulty is a reference to how many students answer a question correctly.

- How many of you know the definition of **exaggerate**?
DOK 1 – recall
 - If all the students know the answer, then it is easy.
- How many of you know the definition of **pellucid**?
DOK 1 – recall
 - If most do not know the definition, this question is difficult, but that alone does not change the DOK level.



» DOK is about complexity



- The intended student learning outcome determines the DOK level.
- Instruction and classroom assessments must reflect the DOK level of the intended learning outcome.



» Recall: DOK Level 1

- DOK 1 requires recall of information, such as a fact, definition, term, or performance of a simple process or procedure.
- Answering a Level 1 item can involve following a simple, well-known procedure or formula.



» DOK Level 1 Examples

- Recall facts
- Apply a formula
- Describe features or characteristics
- Perform a process or set of procedures




Sample Level 1 GED® Question

RLA - Candidate Name Question 2 of 10

Answer Explanation Flag for Review

page 1 page 2 page 3 page 4

Excerpt from *Anne of Green Gables*
by L. M. Montgomery



- 1 Marilla came briskly forward as Matthew opened the door. But when her eyes fell on the odd little figure in the stiff, ugly dress, with the long braids of red hair and the eager, luminous eyes, she stopped short in amazement.
- 2 "Matthew Cuthbert, who's that?" she exclaimed. "Where is the boy?"
- 3 "There wasn't any boy," said Matthew wretchedly. "There was only *her*."

Order of Events

↓

↓

↓

Marilla tells Anne not to cry.

Matthew explains Anne's presence.

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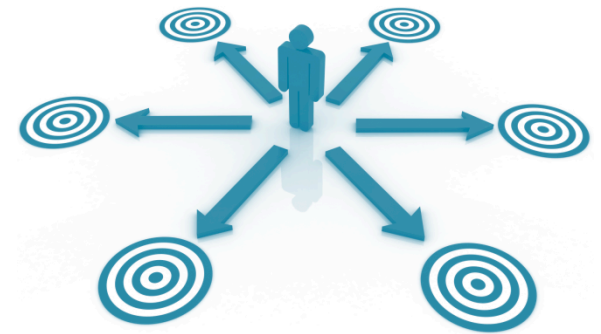
Recall

List



» Skills/Concepts: Level 2

- DOK 2 includes mental processing beyond recalling or reproducing a response. Items require students to make some decisions as to how to approach the question or problem.
- These actions imply more than one mental or cognitive process/step.



» DOK Level 2 Examples

- Identify and summarize information from a text
- Compare and contrast
- Explain cause-effect
- Predict a logical outcome
- Classify geometrical figures
- Retrieve information from a graphic and use it to solve a problem requiring multiple steps




Sample Level 2 GED® Question

RLA - Candidate Name Question 3 of 10

Answer Explanation Flag for Review

page 1 | page 2 | page 3 | page 4

Excerpt from *Anne of Green Gables*
by L. M. Montgomery

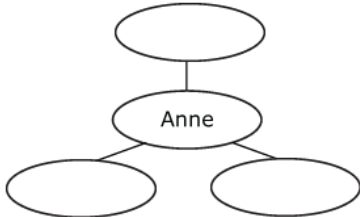


1 Marilla came briskly forward as Matthew opened the door. But when her eyes fell on the odd little figure in the stiff, ugly dress, with the long braids of red hair and the eager, luminous eyes, she stopped short in amazement.

2 "Matthew Cuthbert, who's that?" she exclaimed. "Where is the boy?"

3 "There wasn't any boy," said Matthew wretchedly. "There was only *her*."

Drag and drop each word that describes Anne into the character web.



dramatic practical satisfied

enthusiastic disappointed

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Comprehend

Synthesize

Describe
(why)



» Strategic Thinking: Level 3



- DOK 3 requires deep understanding as exhibited through planning, using evidence, and more demanding cognitive reasoning. The cognitive demands at Level 3 are complex and abstract.
- An assessment item that has more than one possible answer and requires students to justify the response they give would most likely be a Level 3.



» DOK Level 3 Examples

- Analyze or evaluate the effectiveness of literary elements
- Solve a multiple-step problem and provide support
- Compare actions and analyze their impact
- Develop a model for a complex idea
- Propose and evaluate solutions
- Explain, generalize, or connect ideas, using supporting evidence




Sample Level 3 GED® Question

RLA - Candidate Name Question 4 of 10

Answer Explanation Flag for Review

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Excerpt from *Anne of Green Gables*
by L. M. Montgomery



1 Marilla came briskly forward as Matthew opened the door. But when her eyes fell on the odd little figure in the stiff, ugly dress, with the long braids of red hair and the eager, luminous eyes, she stopped short in amazement.

2 "Matthew Cuthbert, who's that?" she exclaimed. "Where is the boy?"

3 "There wasn't any boy," said Matthew wretchedly. "There was only *her*."

In the excerpt, Marilla meets Anne for the first time. Describe the interaction between Marilla and Anne using multiple pieces of evidence from the excerpt to support your response.

Type your response in the box. This task may require approximately 10 minutes to complete.

Cut Copy Paste Undo Redo

← Previous Next →

Synthesize

Evaluate

Reason

Support



» Extended Thinking: Level 4



- DOK 4 requires high cognitive demand and is very complex. Students are expected to make connections - restate ideas with the content or among content areas- and have to select or devise one approach among many alternatives on how the situation can be solved.
- Due to the complexity of cognitive demand, DOK 4 often requires an extended period of time.



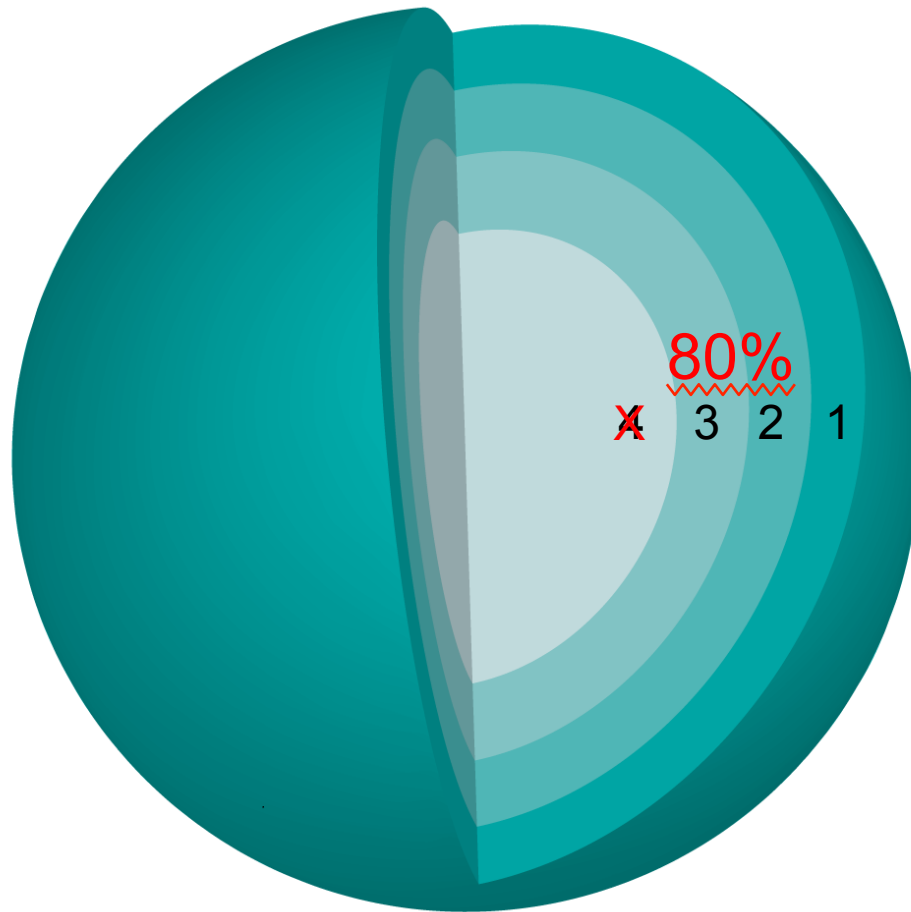
» DOK Level 4 Examples



- Gather, analyze, organize, and interpret information from multiple sources to draft a reasoned report
- Analyze author's craft (e.g., literary techniques, point of view, etc.)
- Analyze and explain multiple perspectives or issues within or across time periods, events, or cultures
- Specify a problem, identify solution paths, solve the problem, and report the results
- Write and produce an original work



Remember, Depth of Knowledge is . . .



- a common theme among the four GED® 2014 content-area tests: demonstration of higher-order thinking skills
- *all about cognitive complexity not difficulty*



» DOK Levels Can Be Cumulative

Standard	DOK Assessed	DOK Needed
Analyze text(s) in order to identify, understand, infer or synthesize information	DOK 3	DOK 1 (read) DOK 2 (understand) DOK 3 (apply information)
Apply knowledge of sentence structure in composing or editing	DOK 2	DOK 1 (know parts) DOK 2 (write sentence/edit sentence)
Predict trends based on graphical representation	DOK 3	DOK 1 (determine how many) DOK 2 (compare) DOK 3 (make decisions)
Simplify and evaluate numerical and algebraic expressions	DOK 1	DOK 1 (solve)



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» Time alone is not a distinguishing factor

DOK Level	Task
Recall	Collecting data samples
Skills/Concepts	Organizing the data in a chart
Strategic Thinking	Using the chart to make and justify predictions
Extended Thinking	Develop a generalized model from the data and apply it to a new situation



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» Across the Levels: Using Information

DOK 1: Recall	Students will locate key ideas or information in a passage.
DOK 2: Skills/Concepts	Students will identify information in a passage that is supported by fact.
DOK 3: Strategic Thinking	Students will use evidence from a passage to formulate opinions in response to a reading passage.
DOK 4: Extended Thinking	Students will analyze the ways in which similar themes or ideas are developed in more than one text.



» It's NOT about the verb . . .

The Depth of Knowledge is NOT determined by the verb (Bloom's Taxonomy), but by the context in which the verb is used and the depth of thinking required.



» Same Verb—3 Different DOK Levels

- **DOK 1- Describe** three characteristics of metamorphic rocks. (Requires simple recall)
- **DOK 2- Describe** the difference between metamorphic and igneous rocks. (Requires cognitive processing to determine the differences in the two rock types)
- **DOK 3- Describe** a model that you might use to represent the relationships that exist within the rock cycle. (Requires deep understanding of rock cycle and a determination of how best to represent it)



Remember DOK is . . .

...a scale of cognitive demand
...descriptive
...NOT the same as difficulty
...NOT the same as Bloom's
Taxonomy



» Check Your Webb Knowledge

Can you identify the complexity of each of the following tasks?



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Question 1

Social Studies - Candidate Name Question 1 of 12

Answer Explanation Flag for Review

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The chart below describes the four methods used to amend the U.S. Constitution.

	Step 1	Step 2
1.	A two-thirds vote in both houses of the U.S. Congress	Ratified by three-fourths of the state legislatures
2.	A two-thirds vote in both houses of the U.S. Congress	Ratified by ratification conventions in three-fourths of the states
3.	A national constitutional convention called by two-thirds of the state legislatures	Ratified by three-fourths of the state legislatures
4.	A national constitutional convention called by two-thirds of the state legislatures	Ratified by ratification conventions in three-fourths of the states

Which statement correctly describes an important way that the process of amending the U.S. Constitution is different from the process of creating federal laws?

- A. Only one government branch is involved in the amendment process.
- B. Only one legislative body can conclude the amendment process.
- C. Only state legislatures are involved in the amendment process.
- D. Only state governments can start the amendment process.

DOK 2

Next →



Question 2

Social Studies - Candidate Name

Question 5 of 12

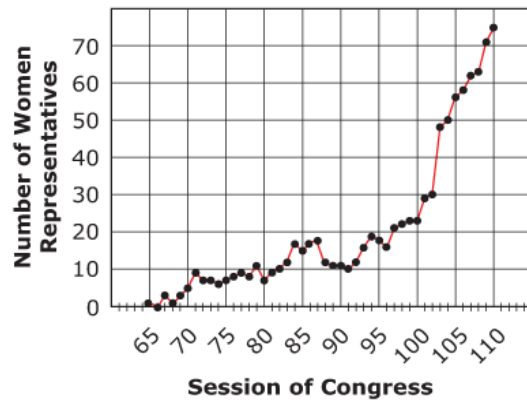
Answer Explanation

Flag for Review

Women's Voting Rights

Since the 19th century, many people have worked for equal rights for women. Much of this effort focused on suffrage, which is the right to vote. One of the greatest victories for advocates of women's rights was ratification of the 19th Amendment to the U.S. Constitution in 1920. The 19th Amendment stated that "The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex." However, the struggle for equality in other areas of society continued even after the 19th Amendment granted woman suffrage.

Number of Women in the U.S. House of Representatives, 1917-2011



This data is taken from the public domain.

Type the appropriate session of Congress in the box.

The number of women representatives who served in the Congress was twice the number of women representatives who served in the 101st Congress.

DOK 2



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Question 3

Science - Candidate Name Question 3 of 12

Answer Explanation Flag for Review

page 1 page 2

Tropical rain forests contain diverse communities of organisms with many interesting relationships. One such relationship connects parasitic fungi and their insect hosts. A type of parasitic fungus, called *Ophiocordyceps unilateralis*, disperses spores onto the forest floor, but cannot successfully grow on the ground. The fungus requires specific conditions and must grow inside of a specific ant species, called the host, to reproduce. The ants, various species of carpenter ant, make nests in the trees.

O. unilateralis feeds on and grows inside the insect host, and within a few days the fungus affects the insect's brain. The insect exhibits unusual behaviors such as wandering away from the colony to where light and humidity favor fungal growth. Just before dying, the insect bites into and firmly attaches itself to a plant. Then, the fungus slowly grows outward from the dead insect's head, producing a pod of spores that eventually bursts open. The spores fall to the ground, restarting the life cycle of the fungus.

Deforestation, or clearing away trees, is occurring in tropical rain forests.

Explain how deforestation could disrupt the life cycle of *Ophiocordyceps unilateralis* in tropical rain forests. Include multiple pieces of evidence from the text to support your answer.

Type your response in the box. This task may require approximately 10 minutes to complete.

Cut Copy Paste Undo Redo

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Question 4

Mathematical Reasoning - Candidate Name

Question 1 of 12

Answer Explanation \mathcal{A} Symbol

Flag for Review

Formula Sheet

Type your answer in the box. You may use numbers, symbols, and/or text in your answer.

An expression is shown.

$$\sqrt{15} \cdot \sqrt{12}$$

Simplify the expression completely. Leave your answer in radical form.

(NOTE: Click the symbol selector when you need to enter the radical sign.)



Next \rightarrow



Question 5

Mathematical Reasoning - Candidate Name

Question 11 of 12

Answer Explanation Calculator

Flag for Review

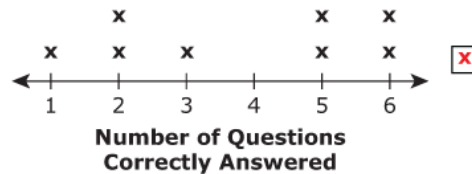
Formula Sheet

Calculator Reference

A speech pathologist collects data from 10 people for an experiment. Each person answers 6 questions. The speech pathologist records the number of questions that each person correctly answered and puts each person's data in the line plot. The median of the data is 3.5, and the mode of the data is 2. Complete the line plot so that the plot matches the pathologist's data.

Click on the red X and drag it onto the graph as many times as necessary to represent the data.

Experiment Data



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» A Few Strategies to Get Started



- Use questions that require students to explain their answers
- Have students apply reading, writing, and mathematical skills using challenging content from all subject areas
- Use open-ended question formats
- Use and develop questions for class discussion and tests that are of the same cognitive rigor as the 2014 GED® test



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These tools have been designed with adult educators in mind, to provide examples of the types of test questions that will be incorporated into the new test, and to help you better understand the knowledge and skills that will be measured on the test. Using these resources should help you to prepare adults to take and succeed on the 2014 GED® test.

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- View or download a printable PDF containing all the content of the Item Samplers for use in situations that focus on the content of the test questions rather than the specific computer functionality

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» Questions, insights, suggestions



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» We appreciate your participation!



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