This scale should be used to assess a single *measurement topic* which consists of several *covarying dimensions*
Ideally, this general scale should be made specific for each measurement topic by identifying the specific aspects of the measurement topics that signify scores of 2.0, 3.0, and 4.0

Complete Scoring Scale (Standards-Based, Formative Assessment System using Item Response Theory)			
A	**4.0**	**In addition to Score 3.0 performance, in-depth inferences and applications that go beyond what was taught**	
		3.5	In addition to Score 3.0 performance, partial success at inferences and applications that go beyond what was taught
B	**3.0**	**No major errors or omissions regarding any of the information and/or processes (simple or complex) that were explicitly taught**	
		2.5	No major errors or omissions regarding the simpler details and process and partial knowledge of the more complex ideas and processes
C	**2.0**	**No major errors or omissions regarding the simpler details and processes but major errors or omissions regarding the more complex ideas and processes**	
D		1.5	Partial knowledge of the simpler details and processes but major errors or omissions regarding the more complex ideas and procedures
F	**1.0**	**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes**	
		0.5	With help, a partial understanding of some of the simpler details and processes but not the more complex ideas and processes
	0.0	**Even with help, no understanding or skill demonstrated**	

A single assessment may examine multiple measurement topics.
A separate score for each measurement topic should be recorded for each assessment.

Developing the Measurement Topics (*Ideally, K-10 … different approach needed for specialized courses*)

1. Unpack the Benchmarks in Standards Documents into Dimensions
2. Identify the Dimensions That Are Essential for All Students to Learn*
3. Organize the Dimensions into Categories of Related Information and Skills (Measurement Topics)

*Limit Measurement Topics to 20 or Fewer per Subject Area and Grade Level

Adopted from Marzano & Associates as published in "Classroom Assessment & Grading That Work" (ASCD)

Sample Measurement Topic from Language Arts

Subject Area: Language Arts Measurement Topic: Reading for Main Idea Grades 9-10			
A	**4.0**	**In addition to Score 3.0 performance, the student goes beyond what was taught by…** • **explaining which parts of a pattern are explicit and which parts must be inferred, and** • **explaining and defending inferences regarding patterns**	
		3.5	In addition to Score 3.0 performance, partial success at inferences and applications that go beyond what was taught
B	**3.0**	**While reading grade-appropriate material, the student identifies the major patterns in the text, such as…** • **complex causal relationships that are explicit and implied,** • **arguments with complex systems of support that are explicit and implied,** • **problems with complex solutions that are explicit and implied, and** • **complex plots with multiple story lines that are explicit and implied.** **The student exhibits no major errors or omissions**	
		2.5	No major errors or omissions regarding the simpler details and process and partial knowledge of the more complex ideas and processes
C	**2.0**	**The student exhibits no major errors or omissions regarding the simpler details, such as identifying…** • **complex causal relationships that are explicit,** • **arguments with complex systems of support that are explicit,** • **problems with complex solutions that are explicit, and** • **complex plots with multiple story lines that are explicit.** **However, the student exhibits major errors or omissions on the more complex ideas and processes.**	
D		1.5	Partial knowledge of the simpler details and processes but major errors or omissions regarding the more complex ideas and procedures
F	**1.0**	**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes**	
		0.5	With help, a partial understanding of some of the simpler details and processes but not the more complex ideas and processes
	0.0	**Even with help, no understanding or skill demonstrated**	

Adopted from Marzano & Associates as published in "Classroom Assessment & Grading That Work" (ASCD)

Ideal assessments contain the following three types of items:

Type I items that address basic details and processes that are relatively easy for students
Teacher asks: *about this measurement topic, what are the basic details and processes students should understand or be able to do fairly easily if they were paying attention in class?*
Type II items that address more complex ideas and processes and are more difficult for students
Teacher asks: *about this measurement topic, what are the more complex ideas and processes students should understand and be able to do if they were paying attention in class?*
Type III items that require students to make inferences or applications that go beyond what was taught in class
Teacher asks: *about this measurement topic, what inferences and applications might students be able to make even though they go beyond what was taught in class?*

Knowledge is divided into: information, mental procedures, and psychomotor procedures

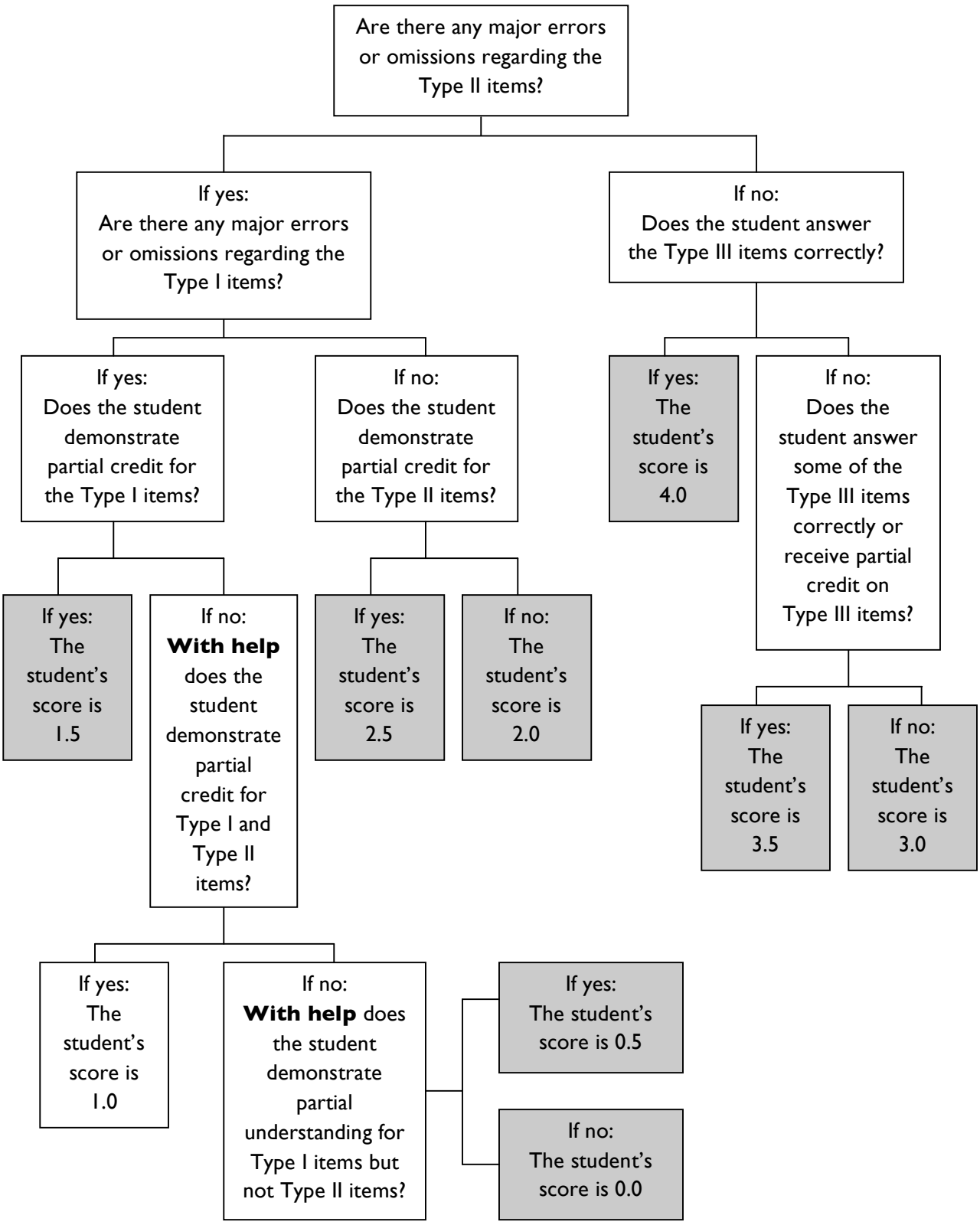
	Information	Mental Procedures	Psychomotor Procedures
Type I	Vocab, Facts, Time Sequences	Single Rules, Algorithms, Tactics	Component Skills
Type II	Generalizations, Principles	Decision Making, Problem Solving, Experimental Inquiry, Investigation, Invention	Complex procedures assembled from component skills
Type III	Comparing, Classifying, Creating Metaphors, Creating Analogies, Analyzing Errors → [*application*]	…similar tasks to above, but with novel situations not presented in class → [*inference*]	…similar tasks to above, but with novel situations not presented in class

Item and task formats: forced-choice, short written response, essays, oral responses and reports, and demonstrations and performances

Quick Reference Guide for Scoring Ideal Assessments									
	Student Pattern of Responses								
Type I Items	+	+	+	+	+	/	/h	/h	Ø h
Type II Items	+	+	+	/	Ø	Ø	/h	Ø h	Ø h
Type III Items	+	/	Ø	Ø	Ø	Ø	Ø h	Ø h	Ø h
Score on Complete Scale	4.0	3.5	3.0	2.5	2.0	1.5	1.0	0.5	0.0
Score on Simplified Scale	4.0	3.0		2.0		1.0		0.0	
+ indicates correct response, / indicates partially correct response, Ø indicates incorrect or no response, h indicates help was provided									

Adopted from Marzano & Associates as published in "Classroom Assessment & Grading That Work" (ASCD)

Scoring Flowchart for Complete Scale



Adopted from Marzano & Associates as published in "Classroom Assessment & Grading That Work" (ASCD)

Student Versions of Scoring Scales			
Simplified Scale		Complete Scale	
4.0	I know (can do) it well enough to make connections that weren't taught.	**4.0**	I know (can do) it well enough to make connections that weren't taught, and I'm right about those connections.
		3.5	I know (can do) it well enough to make connections that weren't taught, but I'm not always right about those connections.
3.0	I know (can do) everything that was taught without making mistakes.	**3.0**	I know (can do) everything that was taught, the easy parts and the harder parts, without making mistakes.
		2.5	I know (can do) all the easy parts and some, but not all, of the harder parts.
2.0	I know (can do) all of the easy parts, but I don't know (can't do) the harder parts.	**2.0**	I know (can do) all of the easy parts, but I don't know (can't do) the harder parts.
		1.5	I know (can do) some of the easier parts, but I make some mistakes.
1.0	With help, I know (can do) some of what was taught.	**1.0**	With help I know (can do) some of the harder parts and some of the easier parts.
		0.5	With help, I know (can do) some of the easier parts but not the harder parts.
0.0	I don't know (can't do) any of it.	**0.0**	I don't know (can't do) any of it.

Possible "Grade Book" Page

Measurement Topic View of Grade Book										
Student:										
Assessment Key	1. Assessment Name & Date 2. Assessment Name & Date 3. Assessment Name & Date 4. Assessment Name & Date 5. Assessment Name & Date			6. Assessment Name & Date 7. Assessment Name & Date 8. Assessment Name & Date 9. Assessment Name & Date 10. Assessment Name & Date			11. Assessment Name & Date 12. Assessment Name & Date 13. Assessment Name & Date 14. Assessment Name & Date 15. Assessment Name & Date			
Assessment #	Measurement Topic 1	Measurement Topic 2	Measurement Topic 3	Measurement Topic 4	Measurement Topic 5	Measurement Topic 6	Measurement Topic 7	Measurement Topic 8	Measurement Topic 9	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
Final Score										

Note 1: A single assessment may, and most likely will, examine multiple measurement topics. Each topic would be reported separately on a given assignment. Therefore, a single assessment may have multiple scores – each providing feedback on a specific measurement topic.

Note 2: Final scores are best calculated using a "power law" function rather than a simple mean value.

Note 3: Determining final grades for a marking period or course should be done carefully with consideration given to learning over time and the limited value in reporting a single final cumulative grade. Averaging points that accumulated over time is a flawed system to report learning according to established measurement and learning theory. The "point system" and "overall grade" are cultural barriers to reporting real learning.