Creating High-Quality Aligned Assessments



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Some Goals for Today

- Understand the elements of standards-based learning, and how these elements support each other.
- Review the basic structure of a proficiency scale as the centerpiece of standards-based learning.
- Understand how to create high-quality assessments that are aligned to standards and proficiency scales.

Elements of Standards-based Learning

Prioritized Standards

Prioritized standards are those that have been identified as most essential to a particular grade level, content area, or course.

Criteria for Prioritizing Standards

- **Does it have endurance?** Do we really expect our students to retain the knowledge and the skills over time as opposed to merely learning it for a test?
- **Does it have leverage?** Will proficiency in this standard help the student in other areas of the curriculum and other academic disciplines?
- **Does it develop student readiness for the next level of learning?** Is it essential for success in the next unit, course, or grade level?
- **What is the teacher's judgment?** Do you as the content expert believe this skill/knowledge is critical for all students to know or be able to do?
- **Is it Assessment Connected?** (Will this skill/knowledge be assessed on an instrument used for instructional decision-making?)

Proficiency Scales

Proficiency Scale

4	**In addition to exhibiting level 3 performance, in-depth inferences and applications that go BEYOND what was taught in class**
3	**No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught**
2	**No major errors or omissions regarding the SIMPLER details and processes BUT major errors or omissions regarding the more complex ideas and processes**
1	**With HELP, a partial knowledge of some of the simpler and complex details and processes**
0	**Even with help, no understanding or skill demonstrated**

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Generic Scale with Half-Point Divisions

4	In addition to exhibiting level 3 performance, in-depth inferences and applications that go beyond what was taught in class
	3.5 *In addition to exhibiting level 3 performance, partial success at in-depth inferences and applications that go beyond what was taught in class*
3	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 any of the simpler information and/or processes and partial knowledge of the more complex information and processes*
2	No major errors or omissions regarding the simpler details and processes BUT major errors or omissions regarding the more complex ideas and processes
	1.5 *Partial knowledge of the simpler details and processes, but major errors or omissions regarding the more complex ideas and processes*
1	With help, a partial knowledge of some of the simpler and complex details and processes
	.5 *With help, a partial knowledge of some of the simpler details and processes but not of the more complex ideas and processes*
0	Even with help, no understanding or skill demonstrated

Important Notes on the Use of Proficiency Scales

- Scale are at the heart of the system
- Scales will:
  - Determine the level of a student on a standard
  - Provide a vision of the next level
  - Identify instructional strategies as level 2, 3 or 4
  - Provide the levels for assessment
  - Provide information for RtI.
  - Determine accuracy of formative and summative scores.

Your Notes on Using Scales with Students

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Planning for Assessment

	Knowledge and Skills	Classroom Instructional Activities	Assessments
4	Typical knowledge and skills in addition to level 3.0	• Experimental Inquiry • Problem-solving • Decision-making • Investigation	• Student-generated assessments
3	Knowledge and skills expected for proficiency	• Cooperative learning • Similarities and Differences • Revising knowledge • High-quality questioning	• Constructed response items
2	Knowledge and skills just below proficiency • Recognizes or recalls specific terminology • Performs basic processes	• Identify crucial information • Previewing • Chunk content • Elaboration on content • High-quality note taking	• Selected response items

Three Types of Assessments

Assessment Type	Your Notes
Obtrusive	
Unobtrusive	
Student-Generated	

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Leveled Assessments

- Arrange the assessment items by the level of the scale.
  - 2.0 section
  - 3.0 section
  - 4.0 section
- Common for the benchmark (or pre-assessment)
- Assessments during instruction may or may not be leveled.

Which Assessments….when?

- Benchmark – all three levels
- After instruction starts (level 2.0) – only 2,0 items
- During instruction – level 2.0, 3.0 (or only 3.0)
- End of instruction – all three levels.
  - Or
- All three levels in every assessment.

Aligning Assessment Items to Levels of the Proficiency Scale

Types of Assessment Items	Levels of Knowledge		
	Score 2.0	**Score 3.0**	**Score 4.0**
	Basic knowledge and skills that students have learned during the instructional unit – fairly easy	More complex knowledge and skills that students have learned during the instructional unit – doable if students were paying attention.	Inferences or applications that go beyond what students were explicitly taught – challenging.
Forced-Choice Items	Short items with a small number of correct responses; options are often included (for example, multiple choice, matching, alternative choice, fill-in-the-blank, multiple response (asks for two or more correct answers)		
Short Written Response	Items that require the construction of one to a few sentences.		
Essay		Longer written response of several paragraphs; covers more information and often requires students to connect, analyze, or apply information; usually requires students to use multiple levels of knowledge.	
Oral Response	Spoken version of forced-choice items or short written responses; longer spoken items such as question-and-answer sessions or structured discussion.		

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Assessment Blueprint

Sample 7th Grade Scale – Ratios and Unit Rates

4.0	In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught in class.
3.0	The student will "compute unit rates associated with ratios of fractions . . . measured in like units." (7.RP.1)
2.0	The student will recognize or recall specific vocabulary such as: • *Compute, fraction, like, ratio, unit, unit rate, unlike* The student will perform basic processes such as: • Decide whether two quantities are in a proportional relationship. (7.RP.2a)

Assessment Blueprint

Scale Descriptor	2.0	3.0	4.0
The student will recognize or recall specific vocabulary such as: • *Compute, fraction, like, ratio, unit, unit rate, unlike*	7 matching items		
The student will perform basic processes such as: • Decide whether two quantities are in a proportional relationship. (7.RP.2a)	1 short answer item		
The student will "compute unit rates associated with ratios of fractions . . . measured in like units." (7.RP.1)		3 short answer items	
In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught in class. For example, the student will find the best deal on soda sold at the local market by comparing various unit rates and figuring various taxes when purchasing soda in various counties and states.			1 extended response item

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Writing Quality Assessment Items

Selected Response Items

- True/False
- Matching
- Multiple Choice

True/False

- Related to a single idea
- Absolutely true OR absolutely false
- Avoid using qualifiers, opinions, and negatives
- Use sparingly, as students have a 50-50 chance of guessing the correct answer

Matching

- Homogeneous in content
- Keep the matching set short
- Uneven number of items to be matched OR items may be used more than once
- Longer reading on the left, matching items on the right

Multiple-choice

- Problem clear in the item stem
- Stem stated in the positive when possible
- Emphasize qualifiers in the stem
- All answer choices plausible
- Answer choices parallel in grammar and length
- Avoid "all" or "none of the above"
- Answer choices in a logical order
- Avoid clues in answer choices
- One correct response possible

Constructed Response Items

- Fill-in-the-blank
- Short Answer
- Essay

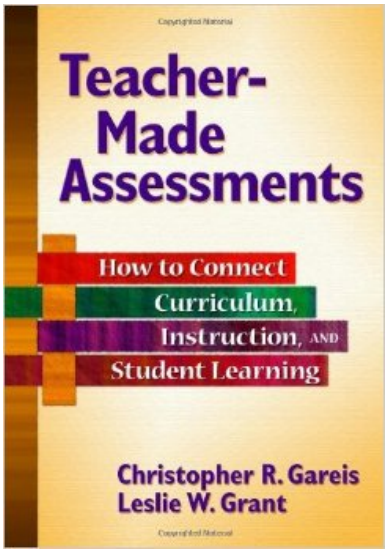
Fill-in-the blank

- Position the blank at the end of the sentence, if possible
- Limit the number of blanks in an item
- Blanks should be same length
- Be sure information prior to/surrounding the blank is adequate
- May use a word bank

Short Answer and Essay Items

- Make the nature of the response desired clear to the reader
- Develop and communicate scoring criteria for the question
- Provide adequate space for responses.

RESOURCE:



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Corresponding Proficiency Scales for Grade-5 Mastery Assessment

M.5.1: Student will solve addition and subtraction problems using whole numbers and apply to real world situations.			
Score 4.0	In addition to score 3.0, indepth inferences and applications go beyond what was taught.		Sample Assessment Tasks
	Score 3.5	In addition to score 3.0 performance, partial success at indepth inferences and applications	
Score 3.0	The student will: • Solve multistep real world problems using addition and subtraction. (M.5.1.1) The student exhibits no major errors or omissions.		• Quiz
	Score 2.5	No major errors or omissions regarding score 2.0 content, and partial knowledge of score 3.0 content	
Score 2.0	There are no major errors or omissions regarding the simpler details and processes as the student will: • Solve single-step problems using addition and subtraction. • Recognize or recall related vocabulary terms (e.g., sum, difference). However, the student exhibits major errors or omissions regarding more complex ideas and processes.		• Whiteboard activity
	Score 1.5	Partial knowledge of score 2.0 content, but major errors or omissions regarding score 3.0 content	
Score 1.0	With help, a partial understanding of some simpler details and processes and more complex ideas and processes		
	Score 0.5	With help, a partial understanding of score 2.0 content, but not of score 3.0 content	
Score 0.0	Even with help, no understanding or skill demonstrated		

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M.5.1: Student will compare, order, add, and subtract whole numbers and apply to real world situations.			
Score 4.0	In addition to score 3.0, indepth inferences and applications go beyond what was taught.		Sample Assessment Tasks
	Score 3.5	In addition to score 3.0 performance, partial success at indepth inferences and applications	
Score 3.0	The student will: • Read and write numbers to the billions. (M.S.1.2) • Compares and orders whole numbers to the billions using <, >, =. (M.S.1.3) The student exhibits no major errors or omissions.		• Place-value card game "War" • "I have, who has" cards
	Score 2.5	No major errors or omissions regarding score 2.0 content, and partial knowledge of score 3.0 content	
Score 2.0	There are no major errors or omissions regarding the simpler details and processes as the student will: • Read and write numbers to the millions. • Compare and order whole numbers to the millions using <,>, =. However, the student exhibits major errors or omissions regarding the more complex ideas and processes.		• Place value card game "War" • "I have, who has" cards
	Score 1.5	Partial knowledge of score 2.0 content, but major errors or omissions regarding score 3.0 content	
Score 1.0	With help, a partial understanding of some simpler details and processes and more complex ideas and processes		
	Score 0.5	With help, a partial understanding of score 2.0 content, but not of score 3.0 content	
Score 0.0	Even with help, no understanding or skill demonstrated		

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M.5.1: Student will solve addition and subtraction problems using whole numbers and apply to real world situations.			
Score 4.0	In addition to score 3.0, indepth inferences and applications go beyond what was taught.		Sample Assessment Tasks
	Score 3.5	In addition to score 3.0 performance, partial success at indepth inferences and applications	
Score 3.0	The student will: • Estimate sums and differences by rounding to the nearest hundred thousand. (M.5.1.5) The student exhibits no major errors or omissions.		• Center
	Score 2.5	No major errors or omissions regarding score 2.0 content, and partial knowledge of score 3.0 content	
Score 2.0	There are no major errors or omissions regarding the simpler details and processes as the student will: • Round whole numbers to the nearest hundred thousand. However, the student exhibits major errors or omissions regarding the more complex ideas and processes.		• "Who's Your Neighbor?" worksheet
	Score 1.5	Partial knowledge of score 2.0 content, but major errors or omissions regarding score 3.0 content	
Score 1.0	With help, a partial understanding of some simpler details and processes and more complex ideas and processes		
	Score 0.5	With help, a partial understanding of score 2.0 content, but not of score 3.0 content	
Score 0.0	Even with help, no understanding or skill demonstrated		

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Sample 5th-Grade Numeration Assessment

M.5.1: Students will solve addition and subtraction problems using whole numbers that apply to real-world situations.

Complete the definition:

1. A sum is _____.

2. A difference is _____.

Write the word form of each number.

3. 5,673,210

Write the standard form for each.

4. 7,000,000 + 40,000 + 3,000 + 20 + 7

5. 6,342,984 ◯ 6,432,984

Order the set of numbers from least to greatest.

6. 5,342,752 5,384,982,762 5,825,701 5,827,902,872

_____ _____ _____ _____

Estimating

7. Round 342,287,976 to the nearest million. _____

8. Estimate the sum of 355,291 + 628,902 by rounding each number to the nearest hundred thousand.

9. Arrange the number cards to create the largest possible number. Use each card one time.

7	6	2	8	4	0	5	0	7	2

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Score 4.0	Students will identify two competing claims about a text, support each with textual evidence, and decide which of the claims is better supported.	
	Score 3.5	In addition to score 3.0 performance, partial success at score 4.0 content
Score 3.0	Students will make claims about what a specific text says explicitly and use relevant textual evidence to support those claims.	
	Score 2.5	No major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content
Score 2.0	Students will understand the concept of an inference. Students will understand the concept of a claim that is supported by evidence. Students will understand the concept of evidence explicit in a text. Students will find or recognize claims that are supported by textual evidence provided by the teacher. Students will find or recognize textual evidence to support claims provided by the teacher.	
	Score 1.5	Partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content
Score 1.0	With help, partial success at score 2.0 content and score 3.0 content	
	Score 0.5	With help, partial success at score 2.0 content, but not at score 3.0 content
Score 0.0	Even with help, no success	

Figure 4.1: Sample proficiency scale.



Your Notes and Points to Remember

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SECTION 1

1. When we say that we have made an inference about a text, we mean that we have noticed something that is:
   A. Directly stated
   B. Indirectly hinted at
   C. Explained in a footnote
   D. Not present in the text at all

2. If you are writing an essay about a book and want to support your claim with textual evidence, the best thing to do would be:
   A. Cite a direct quote
   B. Paraphrase the text
   C. Refer to a quote from an expert
   D. Either A or B

3. Consider the following quote from *To Kill a Mockingbird* and then select the claim that it best supports: "Mockingbirds don't do one thing but make music for us to enjoy. They don't eat up people's gardens, don't nest in corncribs, they don't do one thing but sing their hearts out for us. That's why it's a sin to kill a mockingbird" (Lee, 1960, p. 119).
   A. Children are often smarter than adults expect.
   B. Punishing innocent people is wrong.
   C. Some animals are pests.
   D. Always stand up for what you believe in.

4. Consider the following claim about *To Kill a Mockingbird* and select the quote that best supports it: In Maycomb, being masculine or manly means being physically able.
   A. "For some reason Dill had started crying and couldn't stop; quietly at first, then his sobs were heard by several people in the balcony" (Lee, 1960, p. 265).
   B. "Jem grabbed his left wrist and my right wrist, I grabbed my left wrist and Jem's right wrist, we crouched, and Dill sat on our saddle. We raised him and he caught the window sill" (Lee, 1960, p. 70).
   C. "Jem was scarlet. I pulled at his sleeve, and we were followed up the sidewalk by a philippic on our family's moral degeneration, the major premise of which was that half the Finches were in the asylum anyway, but if our mother were living we would not have come to such a state" (Lee, 1960, p. 136).
   D. "Our father didn't do anything. . . . Atticus did not drive a dump-truck for the county, he was not the sheriff, he did not farm, work in a garage, or do anything that could possibly arouse the admiration of anyone" (Lee, 1960, p. 118).

5. Consider the following claim about *To Kill a Mockingbird* and select the quote that best supports it: Women in the story are typically polite on the outside but cruel underneath.
   A. "I wondered at the world of women. . . . I must soon enter this world, where on its surface fragrant ladies rocked slowly, fanned gently, and drank cool water. But I was more at home in my father's world. People like Mr. Heck Tate did not trap you with innocent questions to make fun of you; even Jem was not highly critical unless you said something stupid" (Lee, 1960, pp. 312–313).
   B. "I felt the starched walls of a pink cotton penitentiary closing in on me, and for the second time in my life I thought of running away" (Lee, 1960, p. 182).

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C. "When we arrived at the Landing, Aunt Alexandra kissed Uncle Jack, Francis kissed Uncle Jack, Uncle Jimmy shook hands silently with Uncle Jack" (Lee, 1960, p. 107).

D. "Miss Caroline was no more than twenty-one. She had bright auburn hair, pink cheeks, and wore crimson fingernail polish. She also wore high-heeled pumps and a red-and-white-striped dress. She looked and smelled like a peppermint drop" (Lee, 1960, p. 21).

SECTION 2

1. Examine the following three quotes from *To Kill a Mockingbird* and make a claim that is supported by all three. Then, explain how each quote supports your claim.

   "Miss Caroline seemed unaware that the ragged, denim-shirted and floursack-skirted first grade, most of whom had chopped cotton and fed hogs from the time they were able to walk, were immune to imaginative literature" (Lee, 1960, p. 22).

   "In Maycomb, if one went for a walk with no definite purpose in mind, it was correct to believe one's mind incapable of definite purpose" (Lee, 1960, p. 199).

   "[Atticus] did not do the things our schoolmates' fathers did: he never went hunting, he did not play poker or fish or drink or smoke. He sat in the livingroom and read" (Lee, 1960, p. 118).

2. Make a claim about the way most citizens of Maycomb treat children and the way Atticus treats children. Find at least two pieces of textual evidence to support your claim.

3. Make a claim about a theme or point that Harper Lee conveys through the story of Tom Robinson's arrest and trial. Use at least three pieces of textual evidence to support your claim.

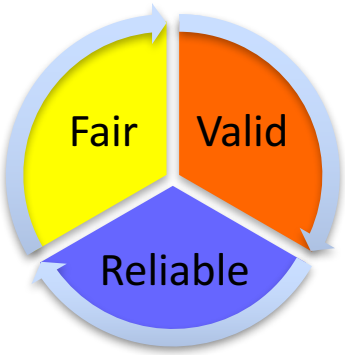
SECTION 3

1. Make two opposing claims about a theme, character, relationship, or other situation in *To Kill a Mockingbird*. Support each claim with at least two pieces of textual evidence and then explain which claim is better supported.

Figure 4.2: Sample assessment at three levels.

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Validity
Reliability
Fairness



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Proficiency Scale and Assessment Review
Question 1: What strengths can you note about the proficiency scale?
Question 2: What would you add or change on the proficiency scale?
Question 3: How well do the items on the assessment connect to language on the proficiency scale?
Question 4: What strengths can you note about the assessment?
Question 5: What would you add or change on the assessment?
Question 6: In your professional judgment, is the assessment fair and will it provide valid and reliable information about student learning?
Question 7: Would you consider this assessment high-quality? Why or why not?

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4th Grade 4.NS.5 Strand: Number Sense			
Topic: Compare Fractions			
Score 4.0	**In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.**		**Sample Tasks** • Given 3 or more fractions with different denominators, student orders them least to greatest or greatest to least • Create a real world problem using measurement (wood working, quilt making, baking) to compare fractions • Student compares improper and/or mixed fractions with unlike denominators
	3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	The student: **4.NS.5** Compare two fractions with different numerators and different denominators (e.g., by creating common denominators or numerators, or by comparing to a benchmark, such as 0, ½, and 1). Recognize comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols <, =, or >, and justify the conclusions (e.g., by using a visual fraction model). • Compare two fractions with unlike denominators. The student exhibits no major errors or omissions.		• Find common denominator showing work • Compare fraction to a benchmark fraction such as ½ • Complete equation comparing two fractions using the appropriate symbol >, =, or < ○ 7/12 _____ 3/4
	2.5	No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content.	
Score 2.0	**There are no major errors or omissions regarding the simpler details and processes as the student:** • recognizes or recalls specific terminology, such as: ○ numerator, denominator, **factors**, common multiple, fraction strips, whole, equal, unequal, common (like) denominators • performs basic processes, such as: ○ Compare two fractions with like denominators. **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**		• Compare two fractions with common denominators. 7/12 _____ 4/12 • Use fraction strips to compare two fractions
	1.5	Partial knowledge of the 2.0 content, but major errors or omissions regarding the 3.0 content.	
Score 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 the 2.0 content, but not the 3.0 content.	
Score 0.0	**Even with help, no understanding or skill demonstrated.**		

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Name _____ Teacher _____

4.NS.5 – *Compare two fractions with different numerators and different denominators.*

Level 2 – Solve numbers 1-4. Write <, >, or = for each pair of fractions.

1. $\frac{3}{4}$ ___ $\frac{2}{4}$

3. $\frac{1}{4}$ ___ $\frac{2}{8}$

2. $\frac{6}{8}$ ___ $\frac{7}{8}$

4. $\frac{1}{6}$ ___ $\frac{1}{3}$

__/4

Level 3 – Solve numbers 5-8. Write <, >, or = for each pair of fractions. Justify your answer with work or pictures.

5. $\frac{3}{4}$ ___ $\frac{4}{5}$

7. $\frac{5}{6}$ ___ $\frac{7}{8}$

6. $\frac{1}{3}$ ___ $\frac{2}{7}$

8. $\frac{2}{3}$ ___ $\frac{4}{6}$

__/4

4.NS.5 1	

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Level 4 – Solve numbers 9 -10. Solve the story problems below. Make sure to show all of your work to get full credit. Each problem is worth more than one point.

9. Sam made a quilt that had green squares $3\frac{4}{6}$ in wide. His quilt was 9 blocks long. Jenny made a quilt that had purple squares that measured $5\frac{2}{3}$ in wide. The quilt was 7 squares long. Dan made a quilt with rectangles that were $6\frac{2}{5}$ in wide. His quilt was 5 rectangles long. Put the three quilt maker's names in order from longest to shortest quilt.

_____ _____ _____

10. Cindy feeds her cats Fluffy, Mittens, and Spots each day. Fluffy eats $2\frac{1}{2}$ cups of food each day. Mittens eats $2\frac{5}{6}$ cups of food each day. Spots eats $2\frac{1}{4}$ cups of food each day. Put the cats in order from least to greatest according to how much they eat each day.

_____ _____ _____ ___/ 4

4.NS.5

2

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Assessment Review Checklist

Content Area _____

Grade Level/Course and Standard(s) _____

Assessment Review Checklist				
Review Criteria	**Yes**	**No**	**Item #s Needing Revision**	**Comments**
The assessment measures the knowledge and skills described in the standard.				
The assessment is free from bias.				
The assessment is written at the developmentally appropriate level and correct readability level.				
Assessment items follow guidelines and are clearly written.				
The Answer Key is accurate and matches the assessment.				
EVERY item has an answer. “Answers may vary” is typically not acceptable.				
A rubric or checklist is provided, if needed.				
Directions are present, and are clear and concise.				
The “Materials Needed” list is accurate and complete.				

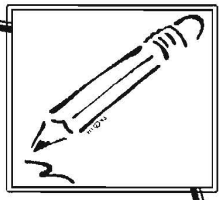
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Instructional Approaches What specific instructional approaches can we utilize to assist each category of students (listed below) progress to the next level of learning?	
Significantly Below Proficiency	
On Target for Proficiency	
Already Proficient	
Assessments How will we know our instructional approaches have worked? What assessments might we employ to check for understanding?	
Significantly Below Proficiency	
On Target for Proficiency	
Already Proficient	

- Collaborative schools that transform schools- Marzano et al page 77

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Notes



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