ASSESSMENT OVERVIEW
Student Packets and Teacher Guide

Grades 6, 7, 8

2015

To help you more fully understand the assessments, extra commentary for each slide is located at the bottom of it.

Some Terms

Formative assessment

-built into the learning process

-central to pedagogy

-monitors progress

-aims to moves instruction forward

Summative assessment

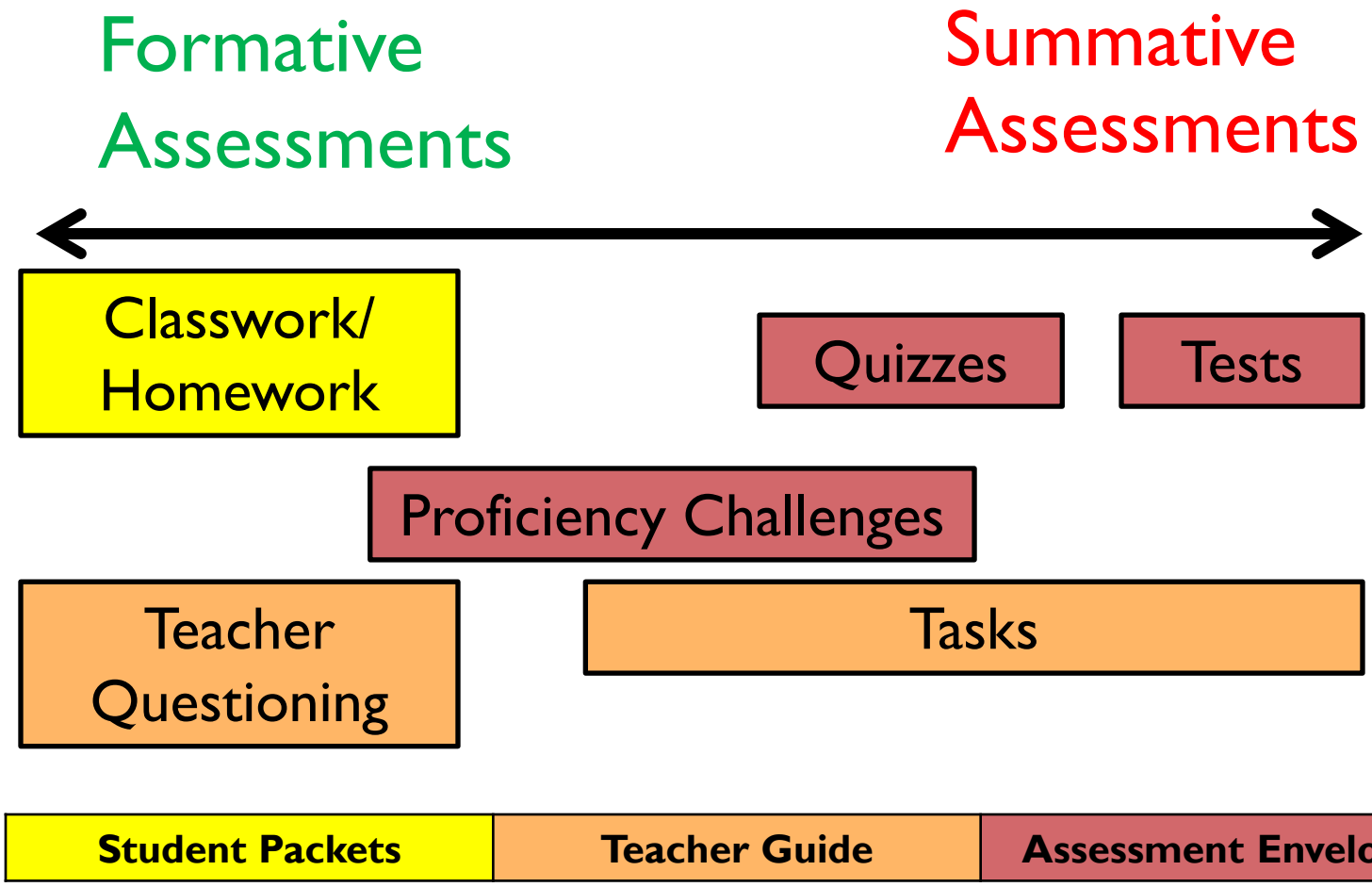
-formal "summing up" of student progress

-comes at the end of a learning episode

-measures knowledge at a given point in time

Many assessments can be used for both formative and summative purposes. These are not labels for different types of assessments. Rather, they describe how the assessments are used.

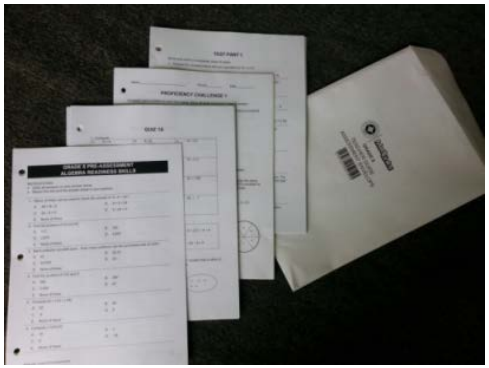
Multiple Measures in *MathLinks*



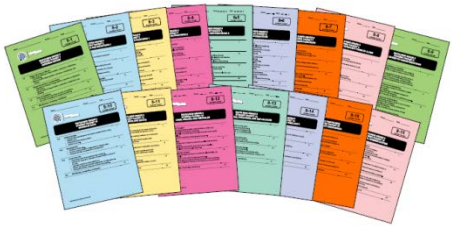
There are many opportunities for formative and summative assessment in *MathLinks*.

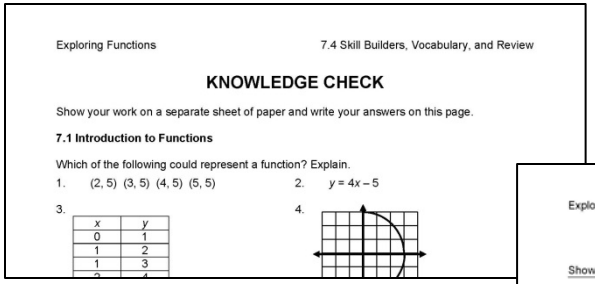
Assessments are located in the Assessment Envelope included with each Teacher Pack. They are available in .pdf format and an editable .docx format and at www.mathandteaching.org through a Teacher Login.

(Contact cary@mathandteaching.org for login.)



Formative Assessment and Review





Exploring Functions 7.4 Skill Builders, Vocabulary, and Review

KNOWLEDGE CHECK

Show your work on a separate sheet of paper and write your answers on this page.

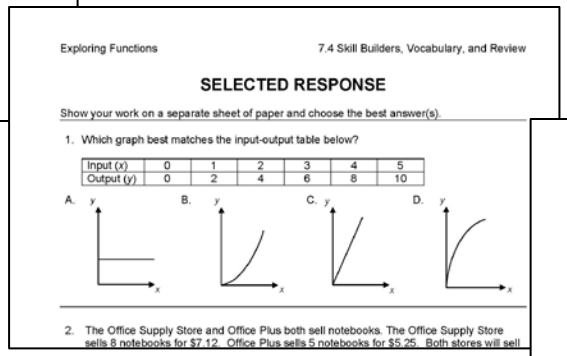
7.1 Introduction to Functions

Which of the following could represent a function? Explain.

1. (2, 5) (3, 5) (4, 5) (5, 5)
2. $y = 4x - 5$
3.

x	y
0	1
1	2
1	3

4.



Exploring Functions 7.4 Skill Builders, Vocabulary, and Review

SELECTED RESPONSE

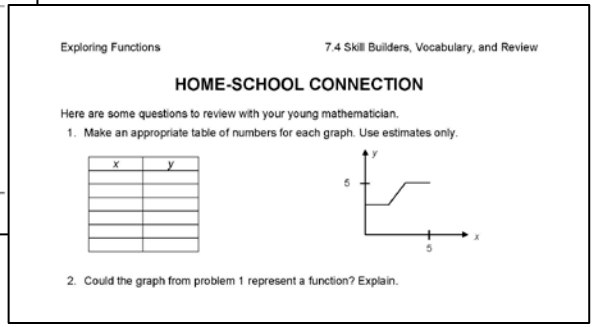
Show your work on a separate sheet of paper and choose the best answer(s).

1. Which graph best matches the input-output table below?

Input (x)	0	1	2	3	4	5
Output (y)	0	2	4	6	8	10

A.
B.
C.
D.

2. The Office Supply Store and Office Plus both sell notebooks. The Office Supply Store sells 8 notebooks for $7.12. Office Plus sells 5 notebooks for $5.25. Both stores will sell



Exploring Functions 7.4 Skill Builders, Vocabulary, and Review

HOME-SCHOOL CONNECTION

Here are some questions to review with your young mathematician.

1. Make an appropriate table of numbers for each graph. Use estimates only.

x	y

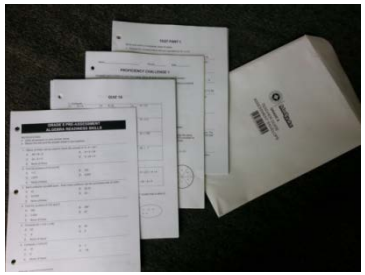
2. Could the graph from problem 1 represent a function? Explain.

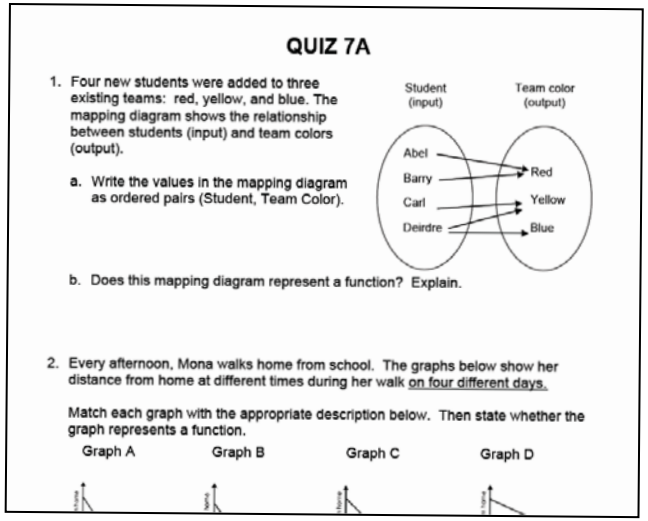
Several pages at the end of the MathLinks Student Packet (SP) are useful for formative assessment. The "Selected Response" page includes multiple-choice type questions patterned after those on SBAC where more than one answer may be correct. Knowledge checks are appropriate as warmups or review. Students can share what they learned on Home-School Connection page where a line for parent signature is included.

Additionally, formative assessment may take place as teachers check daily work in SPs or ask questions, that appear in dark italic print in the Teacher Guide. Please feel free to adjust lesson plans based on what happens in the classroom.

Traditional Assessments

Quizzes





QUIZ 7A

1. Four new students were added to three existing teams: red, yellow, and blue. The mapping diagram shows the relationship between students (input) and team colors (output).

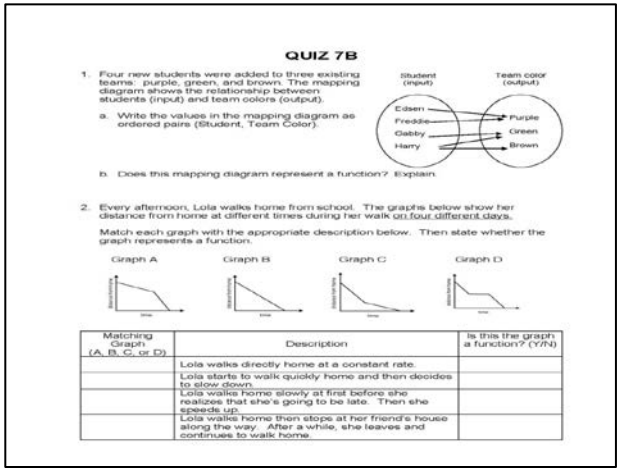
   a. Write the values in the mapping diagram as ordered pairs (Student, Team Color).

   b. Does this mapping diagram represent a function? Explain.

2. Every afternoon, Mona walks home from school. The graphs below show her distance from home at different times during her walk on four different days.

   Match each graph with the appropriate description below. Then state whether the graph represents a function.

Graph A Graph B Graph C Graph D



QUIZ 7B

1. Four new students were added to three existing teams: purple, green, and brown. The mapping diagram shows the relationship between students (input) and team colors (output).

   a. Write the values in the mapping diagram as ordered pairs (Student, Team Color).

   b. Does this mapping diagram represent a function? Explain.

2. Every afternoon, Lola walks home from school. The graphs below show her distance from home at different times during her walk on four different days.

   Match each graph with the appropriate description below. Then state whether the graph represents a function.

Graph A Graph B Graph C Graph D

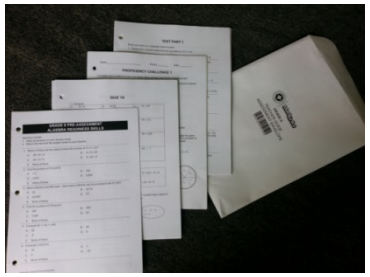
Matching Graph (A, B, C, or D)	Description	Is this the graph a function? (Y/N)
	Lola walks directly home at a constant rate.	
	Lola starts to walk quickly home and then decides to slow down.	
	Lola walks home slowly at first before she realizes that she's going to be late. Then she speeds up.	
	Lola walks home then stops at her friend's house along the way. After a while, she leaves and continues to walk home.	

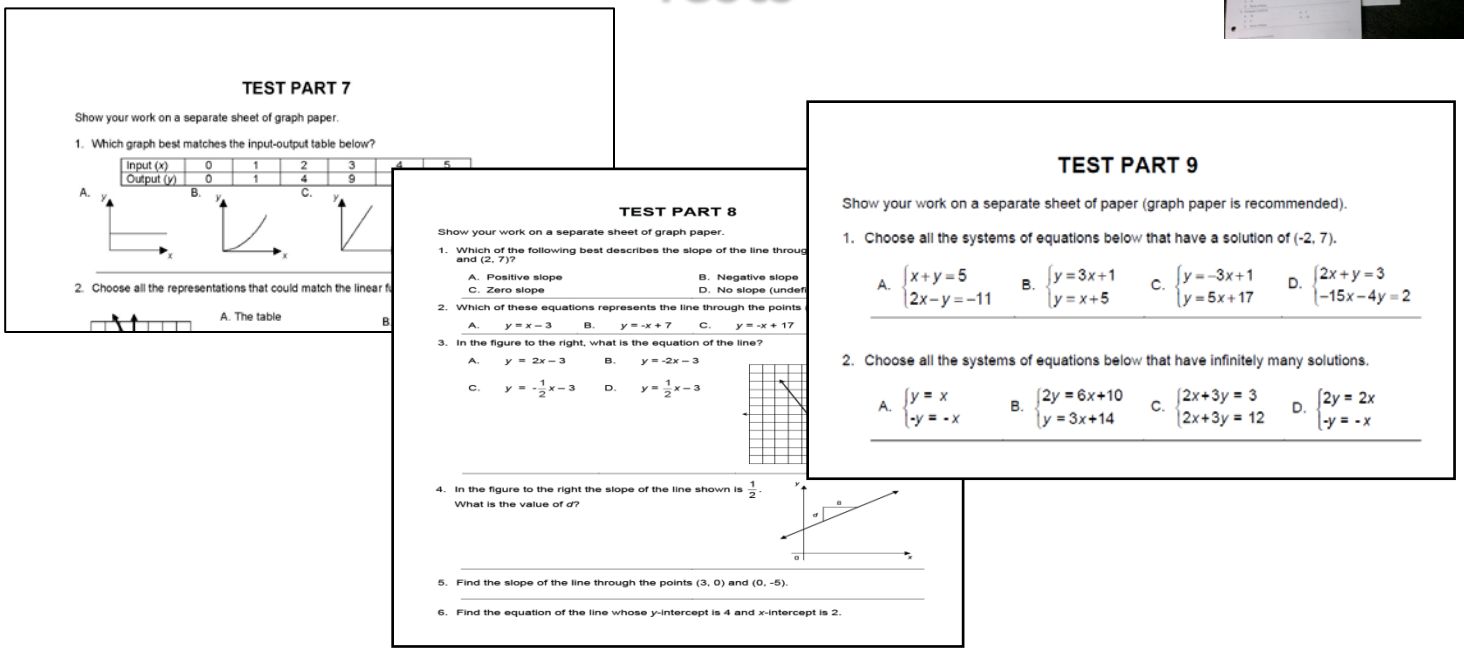
Quizzes are included for each of the sixteen packets of MathLinks. They require straightforward responses, similar to the work in packets. Two parallel forms are provided, which may be used for review or reteaching as needed.

In MathLinks, we consider quizzes to be less summative than tests because students will continue to practice concepts in future packets after they are introduced. Teachers may want to weight quizzes less in a student's grade than other work because they are given before students are expected to attain fluency.

Traditional Assessments

Tests





TEST PART 7

Show your work on a separate sheet of graph paper.

1. Which graph best matches the input-output table below?

Input (x)	0	1	2	3	4	5
Output (y)	0	1	4	9		

A. B. C.

2. Choose all the representations that could match the linear fu

A. The table

TEST PART 8

Show your work on a separate sheet of graph paper.

1. Which of the following best describes the slope of the line throug and (2, 7)?

A. Positive slope B. Negative slope
C. Zero slope D. No slope (undef

2. Which of these equations represents the line through the points

A. $y = x - 3$ B. $y = -x + 7$ C. $y = -x + 17$

3. In the figure to the right, what is the equation of the line?

A. $y = 2x - 3$ B. $y = -2x - 3$

C. $y = -\frac{1}{2}x - 3$ D. $y = \frac{1}{2}x - 3$

4. In the figure to the right the slope of the line shown is $\frac{1}{2}$. What is the value of d?

5. Find the slope of the line through the points (3, 0) and (0, -5).

6. Find the equation of the line whose y-intercept is 4 and x-intercept is 2.

TEST PART 9

Show your work on a separate sheet of paper (graph paper is recommended).

1. Choose all the systems of equations below that have a solution of (-2, 7).

A. $\begin{cases} x+y=5 \\ 2x-y=-11 \end{cases}$ B. $\begin{cases} y=3x+1 \\ y=x+5 \end{cases}$ C. $\begin{cases} y=-3x+1 \\ y=5x+17 \end{cases}$ D. $\begin{cases} 2x+y=3 \\ -15x-4y=2 \end{cases}$

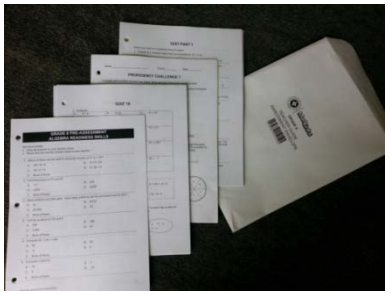
2. Choose all the systems of equations below that have infinitely many solutions.

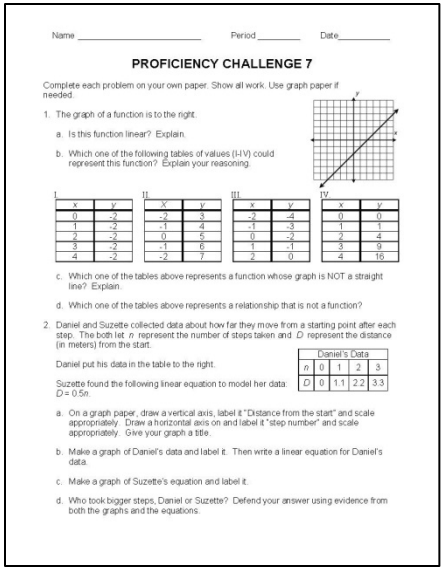
A. $\begin{cases} y = x \\ -y = -x \end{cases}$ B. $\begin{cases} 2y = 6x+10 \\ y = 3x+14 \end{cases}$ C. $\begin{cases} 2x+3y = 3 \\ 2x+3y = 12 \end{cases}$ D. $\begin{cases} 2y = 2x \\ -y = -x \end{cases}$

MathLinks Tests assess basic content from a packet with the corresponding number. That is, Test Part 7 assesses the content in Packet 7. Each test generally includes 4-6 items in selected response or short answer formats. They are organized into parts to allow flexibility when assembling summative assessments. They are NOT intended to be given right after the completion of a packet.

We envision that students will take cumulative assessments several weeks after the completion of packets because they attain fluency through skill builders. For more information about how to combine tests to create cumulative assessments, please look at page 4 in the Assessment Information Tab of the Teacher Resource Guide.

Proficiency Challenges





Name _____ Period _____ Date_____

PROFICIENCY CHALLENGE 7

Complete each problem on your own paper. Show all work. Use graph paper if needed.

1. The graph of a function is to the right.

a. Is this function linear? Explain.

b. Which one of the following tables of values (I-IV) could represent this function? Explain your reasoning.

I

x	y
0	-2
1	-2
2	-2
3	-2
4	-2

II

x	y
-2	3
-1	4
0	5
1	6
2	7

III

x	y
-2	-4
-1	-3
0	-2
1	-1
2	0

IV

x	y
0	0
1	1
2	4
3	9
4	16

c. Which one of the tables above represents a function whose graph is NOT a straight line? Explain.

d. Which one of the tables above represents a relationship that is not a function?

2. Daniel and Suzette collected data about how far they move from a starting point after each step. The both let *n* represent the number of steps taken and *D* represent the distance (in meters) from the start.

Daniel put his data in the table to the right.

Daniel's Data

n	0	1	2	3
D	0	1.1	2.2	3.3

Suzette found the following linear equation to model her data: $D = 0.5n$.

a. On a graph paper, draw a vertical axis, label it "Distance from the start" and scale appropriately. Draw a horizontal axis on and label it "step number" and scale appropriately. Give your graph a title.

b. Make a graph of Daniel's data and label it. Then write a linear equation for Daniel's data.

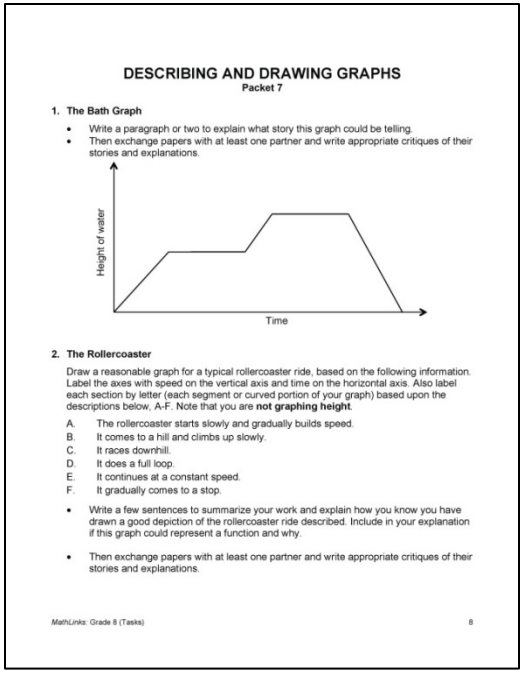
c. Make a graph of Suzette's equation and label it.

d. Who took bigger steps, Daniel or Suzette? Defend your answer using evidence from both the graphs and the equations.

Proficiency challenges assess skills, concepts and applications with more rigorous questions than those found on quizzes. They are typically 1 or 2 pages long. Often students apply concepts learned from current or past work. Most do not include structured work space, so students must organize and complete their work on their own paper. Many items are similar to those released by the Smarter Balanced Assessment Consortium.

Two possible uses of Proficiency Challenges are as a challenging assessment of content, or as individual or group practice prior to a quiz or test.

Tasks



DESCRIBING AND DRAWING GRAPHS
Packet 7

1. **The Bath Graph**

- Write a paragraph or two to explain what story this graph could be telling.
- Then exchange papers with at least one partner and write appropriate critiques of their stories and explanations.

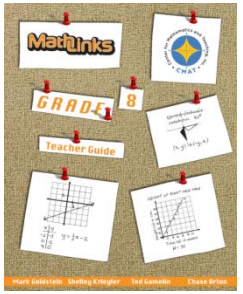
2. **The Rollercoaster**

Draw a reasonable graph for a typical rollercoaster ride, based on the following information. Label the axes with speed on the vertical axis and time on the horizontal axis. Also label each section by letter (each segment or curved portion of your graph) based upon the descriptions below, A-F. Note that you are **not graphing height**.

A. The rollercoaster starts slowly and gradually builds speed.
B. It comes to a hill and climbs up slowly.
C. It races downhill.
D. It does a full loop.
E. It continues at a constant speed.
F. It gradually comes to a stop.

- Write a few sentences to summarize your work and explain how you know you have drawn a good depiction of the rollercoaster ride described. Include in your explanation if this graph could represent a function and why.
- Then exchange papers with at least one partner and write appropriate critiques of their stories and explanations.

MathLinks: Grade 8 (Tasks) 8



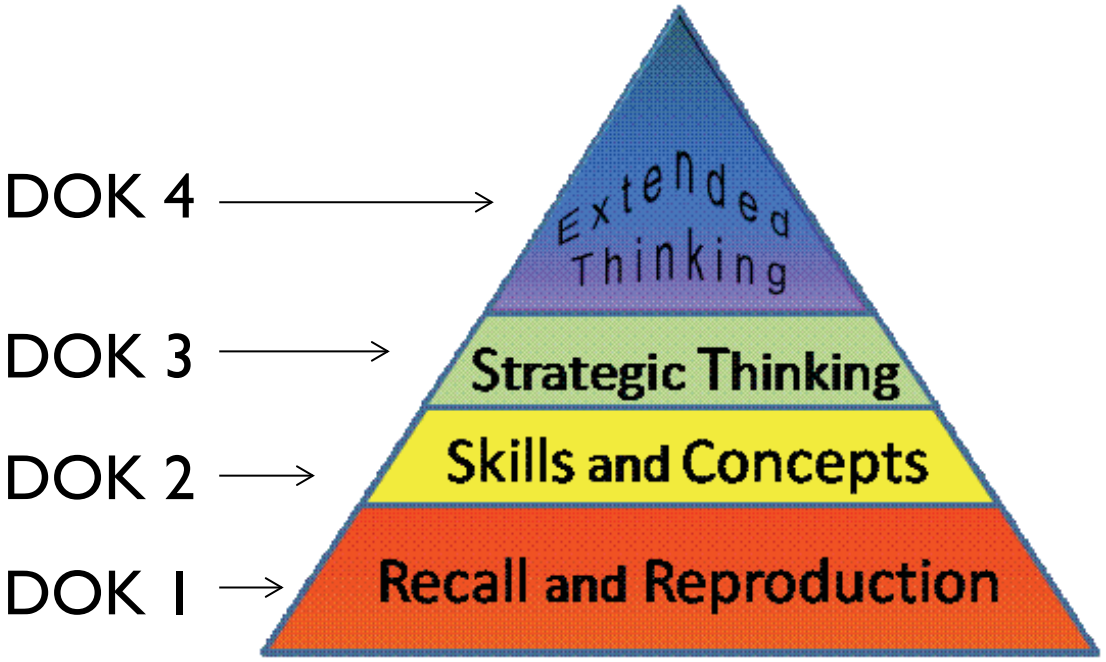
There is at least one, and up to four, tasks for each *MathLinks* packet. Tasks are rich problems that may be used as longer assignments, problems of the week, or projects. They include skill building challenges, conceptual development extensions, and real world problems. Because we allocate two to three days for each lesson in *MathLinks,* there should be sufficient time for students to tackle tasks on a regular basis. Charts showing alignment of tasks to Smarter Balanced claims and math practices are included in the Tab 4 and Tab 5 of the Teacher Guide.

More Performance Tasks

- http://www.insidemathematics.org
- http://www.smarterbalanced.org
- https://www.illustrativemathematics.org

We highly recommend that you include our tasks, or others you may find, regularly during the year. Many good tasks available on the internet.

Depth of Knowledge (DOK)



Finally, did you know that one of the main differences between high stakes assessment in previous years, such as California's CST, and the current assessments, such as Smarter Balance, is the level of DOK in questions. According to David Foster, less than 2% of the CST questions were at DOK level 3, while currently about 49% of the SBAC questions are at DOK level 3. This clearly has important implications for how we teach and assess if we want students to be prepared for new assessments.

Thank you.

We look forward to hearing from you.

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