

Using Twitter to Learn Problem Solving Skills

TITLE:	"Payroll Manager"
LESSON DEVELOPERS:	Adapted to the Twitter Timeline by the LearningFront Team from a performance instruction task developed by Sandy Ciekot, Rita Lambert, and Kathleen Stundick Rasinski
CONTENT AREA AND GRADE:	Mathematics - Grade 6
PURPOSE:	Work in Progress: Please add your suggestions to this WikiTask for improvement. Thank you.

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STANDARDS:

Maryland State Learning Outcomes

Outcome # 5 – Students will demonstrate their ability to apply estimation strategies in computation, with the use of Twitter, in measurement, and in problem solving. They will determine reasonableness of solutions.

Outcome # 6 – Students will demonstrate their ability to solve problems using arithmetic operations with technology where appropriate.

BCPS/Roland Park Learning Outcomes

- To add, subtract, multiply, and divide decimals.
- To determine if solution is reasonable.
- To solve problems involving money and time.

SETTING:

Real World Setting: Running a Small Business

You are the payroll manager of the **Top Hits** record shop. You must calculate wages to stay within the shop's operating budget. You must plan the payroll to keep the business operating. Once you have completed your payroll, you will share your results in the Twitter timeline for your followers.

LEARNING:

*Using the Twitter Timeline to Format a Mathematics Performance Task:
"Payroll Manager"*

Note: The following performance task template and sample teacher tweets are offered as a "Work in Progress" to explore how mathematics might be integrated into the Twitter timeline. We recognize that additional tweets will be necessary when the task is activated and students respond. Please adjust the teacher tweets to meet the differentiated needs of your students prior to and as this task is taught through online or blended online and classroom settings. *Copy and paste your customized tweets into the Twitter timeline as instruction evolves with your students.*

Teacher Tweet 1: Setting

Compose new Tweet...

Today you'll experience the role of a payroll manager who must calculate wages to stay within a business budget

Teacher Tweet 2: Setting

Compose new Tweet...

You will use wage data to plan a payroll and keep a business operating

Teacher Tweet 3: Setting

Compose new Tweet...

You are a payroll manager of a local record shop that has part-time and full-time positions

Teacher Tweet 4: Sharing

Compose new Tweet...

You will work in small groups and write a description of key vocabulary words and discuss how they are related

Teacher Tweet 5: Sharing

Compose new Tweet...

Make a chart of the following vocabulary words: payroll, wage, manager, cashier, stock person, and sales person

Teacher Tweet 6: Analyzing and Classifying

Compose new Tweet...

You are the payroll manager of "The iMusic Shop"

Teacher Tweet 7: Analyzing and Classifying

Compose new Tweet...

Think about the jobs needed to run a music shop. Create a list

Teacher Tweet 8: Analyzing and Classifying

Compose new Tweet...

Using these data [Tiny URL], determine the job that corresponds to each person's wage

URL Content

November Wage Data Base

Name	Hourly	Hours Worked Per Week
1. Judy	\$4.65	12
2. Wayne	\$5.95	40
3. Ann	\$6.25	40
4. George	\$14.80	40
5. Gary	\$5.50	35
6. Bill	\$8.25	25
7. Tom	\$10.05	35
8. Dave	\$5.25	20

Teacher Tweet 9: Analyzing and Classifying

Compose new Tweet...

Using the wage database, categorize each person listed as full or part-time and match an hourly wage with a job described previously [Tiny URL]

URL Content

Full Time		
Name	Wage	Job
1.	—	—
2.	—	—
3.	—	—
4.	—	—

Part Time		
Name	Wage	Job
1.	—	—
2.	—	—
3.	—	—
4.	—	—

Teacher Tweet 10: Calculating

Compose new Tweet...

As payroll manager, find the total amount of money needed to pay all the employees for one month (4 weeks) using the November Wage Database

Teacher Tweet 11: Comparing

Compose new Tweet...

The store manager tells you the amount for December's payroll is \$9,800.

Teacher Tweet 12: Comparing

Compose new Tweet...

Determine if you have enough money to pay all the wages as you did in November.
Explain your answer

Teacher Tweet 13: Calculating and Comparing

Compose new Tweet...

Look at the December Wage Database – decide what is different and why? [Tiny URL]

URL Content

December Wage Data Base		
Name	Hourly	Hours Worked Per Week
1. Judy	\$4.65	20
2. Wayne	\$5.95	45
3. Ann	\$6.25	42
4. George	\$14.80	46
5. Gary	\$5.50	41
6. Bill	\$8.25	30
7. Tom	\$10.05	42
8. Dave	\$5.25	25

Teacher Tweet 14: Calculating and Comparing

Compose new Tweet...

As payroll manager, you now have to calculate the new payroll, remembering the employees working overtime are paid time and a half

Teacher Tweet 15: Updating

Compose new Tweet...

Note: Overtime is more than 40 hours a week

Teacher Tweet 16: Comparing

Compose new Tweet...

How does it compare to the December budget?

Teacher Tweet 17: Comparing

Compose new Tweet...

Explain how the annual sales cycle changes and what influences it

Teacher Tweet 18: Tying it all together**Compose new Tweet...**

Thanks for helping to solve this task! I liked the way [Enter text]. We need to improve [Enter text]. Our next task is [Enter text].

SCORING:

TWEETS	SCORING CRITERIA	POINTS
Tweet 10 and Tweet 13	Correct calculations of 7–8	3
	Correct calculations of 4–6	2
	Correct calculations of 1–3	1
	No correct calculations	0

TWEETS	SCORING CRITERIA	POINTS
Tweet 12 and Tweet 16	Within or without the budget and why	2
	Within or without – no why	1
	No response	0

RESULTS:

Organize: I will use the following chart to display student data for each time that I assess and score the same content standard:

Data-Driven Results Disaggregated by All Students and AYP Sub Groups

Directions: Complete this chart for each content standard and aligned scoring tool used to measure student performance in classrooms. In order to judge student growth across assessments, record data from only one scoring tool on one chart. Then, follow these steps:

1. For each student's performance on your scoring tool, enter his or her score in the appropriate cell under the headings for Scoring Results, e.g., 3, 2, 1, or 0 on a four-point rubric. The first example below shows that Jason Anderson scored a 3. His score is entered under the "All Students" heading and under "Black" students.
2. Enter the summary data at the bottom of each assessment column for all students and each sub group.
3. Analyze the results and relate them to the instructional processes used to teach the standards-based lesson to all students, to white students, to black students and so forth, e.g., what worked well, what needs improvement, what was learned for improving instruction

and student learning?

- Edit this table on the TaskBuilderOnline Design Page to add student names, to rename disaggregated groups, or to make other modifications. Also, you may delete these directions from this table after you become familiar with this data analysis process.

Content Standard: *Students will demonstrate their ability to solve problems using arithmetic operations with Twitter where appropriate*

Students	Scoring Results					
Last Name and First Name	All Ss	White	Black	Latino	IEP	EcDis
1. Example: Anderson, Jason	2		2			
2. Example: Anderson, Susan	1				1	
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
# Of students at the Advanced Performance Level						
# Of students at the Proficient Performance Level						
# Of students at the Basic Performance Level						
% of Students equal to or greater than the Proficient Level (Total # of students at the proficient and advanced levels divided by the total number of students)						
% Distance above or below school Annual Measurable Objective (AMO)						

Analyze: I will examine the data in the chart to look for contributing factors over a series of assessments of the same learning standard.

Contributing factors:

Reflect: I will consider the following stems to reflect on the results and instructional strategies I used and others I might benchmark and apply in the future.

As I relate my students' results with my lesson activities, I noticed that...

- (Enter short strategy description) had the most influence on student achievement because:
- (Enter short strategy description) had the least influence on student achievement because:
- (Enter short strategy description) has the most promise for becoming a best practice in my classroom

because:

As a follow up I will...

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