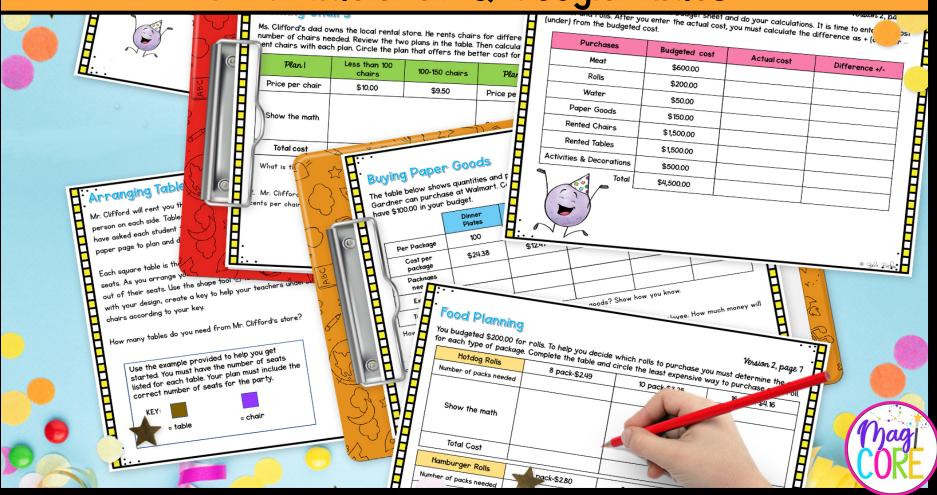
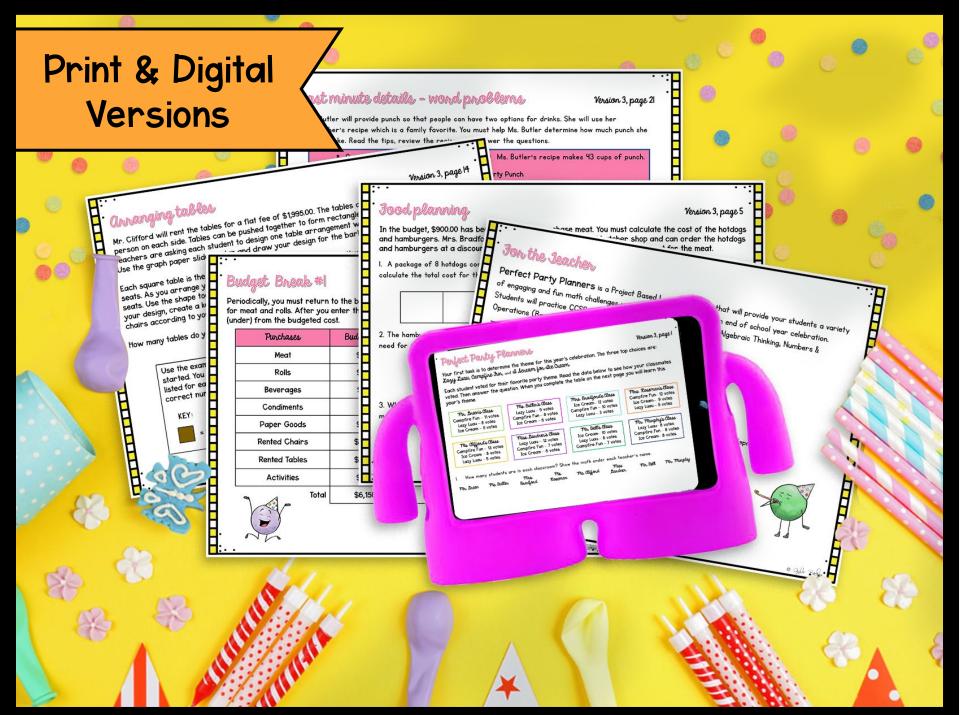
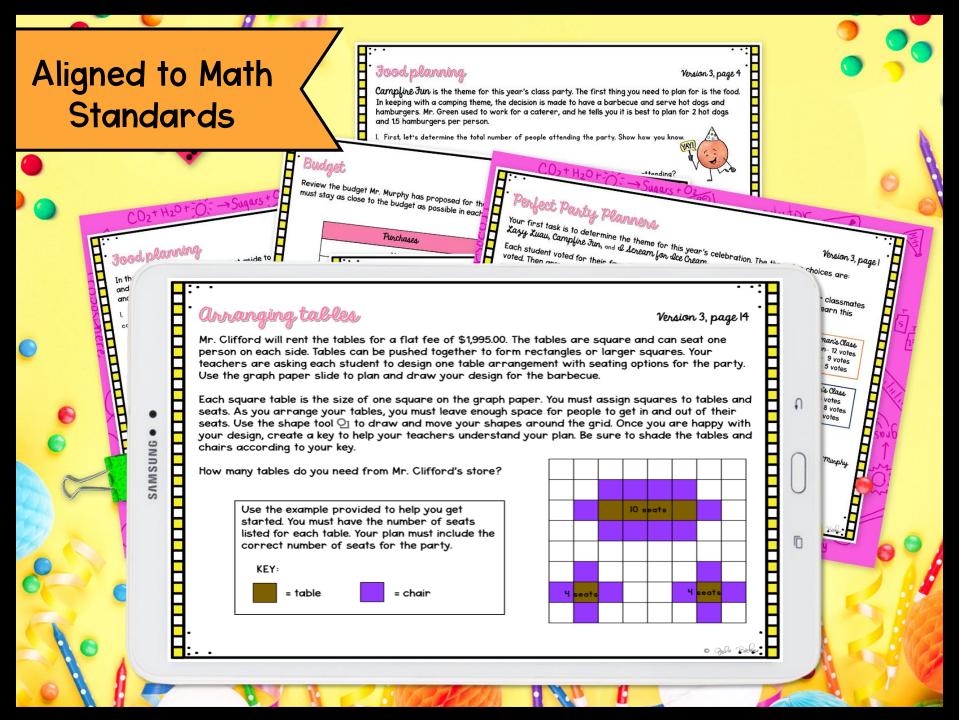
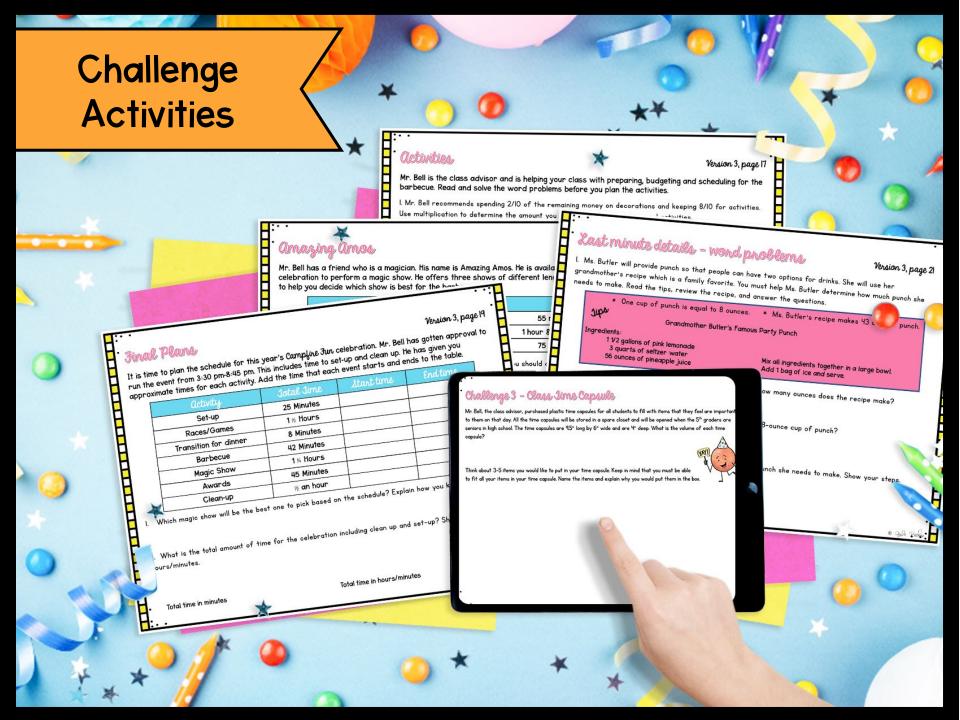
# PERFECT PARTY PLANNERS Project Based Learning

#### 5th Grade Print & Google Slides









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#### For the Jeacher

Perfect Party Planners is a Project Based Learning packet that will provide your students a variety of engaging and fun math challenges using the theme of "planning an end of school year celebration".

#### The following standards are addressed:

- 5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10
- 5.NBT.A.4 Use place value understanding to round decimals to any place.
- 5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.
- 5.NBT.B.6 Find whole number quotients of whole numbers with up to four-digit dividends and two-digit divisor, using strategies based on place value, properties of operations, and/or relationship between multiplication and division.
- 5.NBT.B.7 Perform all operations with decimals to hundredths, using concrete models, drawings, and strategies based on place value, properties of operations, and/or the relationship between add./sub., relate to a written method and explain reasoning.
- 5.NF.B.4.B Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths.
- 5.NF.B.6 Solve real world problems involving multiplication of fractions and mixed numbers.
- 5.MD.A.I Convert among different sized standard measurement units within a given measurement system. Use in solving multi-step
  real world problems.
- 5.MD.B.2 Make a line plot to display a data set of measurements in fractions of a unit. Solve problems involving addition and subtraction of fractions by using information presented in line plots.

#### Directions:

- I. Decide if your class will complete the project as a whole group, in small groups or independently.
- 2. Copy packets and provide students with materials necessary to complete the packet.
- 3. Students should complete the project over several days.
- 4. Preview the activity with your students.
- 5. Challenge activities can be assigned or can be optional.
- 6. Students will complete the self-evaluation reflection rubric.
- 7. Allow students an opportunity to share their completed projects.





#### Perfect Party Planners

The students in 5<sup>th</sup> grade are having a celebration for the end of the school year. You and your classmates are responsible for planning the event. You will research and decide on food, drinks and activities. Each teacher will offer some unique planning help.

#### Here are your tasks:

- Read through the entire packet before beginning the activities.
- Work within a budget to purchase tables, chairs, drinks, food and entertainment.
- Create seating arrangements using tables and chairs.
- Plan a schedule for the celebration.
- Choose the best entertainment for your schedule.
- Complete creative word problems.
- Give the extra challenge pages a try. (optional)
- Complete the self-reflection and evaluation rubric.
- HAVE FUN!



#### Perfect Party Planners

Name:
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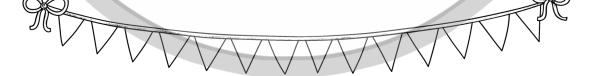
Congratulations! You have made it to the end of the school year.

It is a tradition in your school for the students in grade 5 to plan their own end of the school year celebration. Throughout the year your grade has had several fund raisers to earn money to spend on your celebration. The amount of money in your class budget is \$6,150.00 Now that the end of the year is just a few months away, it is time to start planning.

Your must work with your teachers and classmates to plan a party that recognizes everyone's hard work and accomplishments. Students will be responsible for all planning, as well as the set up and the clean up on party day. The most important part of your task is to be sure everyone enjoys good food and old-fashioned fun.

Included in the event will be all grade 5 students, their 8 teachers and 7 teaching assistants. No parents or siblings will be coming to the party. However, you must plan for the principal and assistant principal to join the celebration. You cannot spend more than the \$6,150.00 your grade level earned this year. You will use the money to purchase food, supplies and activities for the big event.

Let's get started!



Version 3, page 1

Your first task is to determine the theme for this year's celebration. The three top choices are: Lazy Luau, Campfire Jun, and & Scream for Oce Cream.

Each student voted for their favorite party theme. Read the data below to see how your classmates voted. Then answer the question. When you complete the table on the next page you will learn this year's theme.

Mr. Arlen's Class

Campfire Fun — 11 votes

Lazy Luau — 8 votes

Ice Cream — 5 votes

Ms. Butler's Class
Lazy Luau – 9 votes
Campfire Fun – 8 votes
Ice Cream – 6 votes

Mrs. Bradford's Class Ice Cream— 12 votes Campfire Fun — 10 votes Lazy Luau — 3 votes Mrs. Roseman's Class Campfire Fun— 12 votes Ice Cream— 9 votes Lazy Luau — 5 votes

Ms. Clifford's Class

Campfire Fun — 13 votes

Ice Cream — 8 votes

Lazy Luau — 5 votes

Miss Hardner's Class Lazy Luau – 12 votes Campfire Fun – 7 votes Ice Cream – 6 votes Mr. Bell's Class
Ice Cream— 10 votes
Lazy Luau — 8 votes
Campfire Fun — 7 votes

Mr. Murphy's Class Lazy Luau— 8 votes Campfire Fun— 8 votes Ice Cream— 8 votes

I. How many students are in each classroom? Show the math under each teacher's name.

Mr. Green

Ms. Butler

Mrs. Bradford Ms. Roseman

Ms. Clifford

Miss Lardner

Mr. Bell Mr. Murphy

## Budget

Review the budget Mr. Murphy has proposed for the party. The total you can spend is \$6,150.00. You must stay as close to the budget as possible in each category listed in the table.

Purchases	Budgeted cost
Meat	\$900.00
Rolls	\$375.00
Beverages	\$125.00
Condiments	\$85.00
Paper Goods	\$250.00
Rented Chairs	\$1,850.00
Rented Tables	\$2,015.00
Activities	\$550.00



Total \$6,150.00

In the budget, \$900.00 has been set aside to purchase meat. You must calculate the cost of the hotdogs and hamburgers. Mrs. Bradford's husband works at the local butcher shop and can order the hotdogs and hamburgers at a discount. Answer the questions below to find the total cost for the meat.

I. A package of 8 hotdogs costs \$9.00. Consider the number of packages you need for the party and calculate the total cost for the hotdogs. Use an area model to solve.

2. The hamburgers come in packages of 10 and cost \$12.76 each. Consider the number of packages you will need for the party. How much it will cost for the hamburgers?

3. What is the total cost for meat? Have you stayed within your \$900.00 budget? If not, how much more money did you spend?



#### Food planning

Version 3, page 7

@ Julio Box

You budgeted \$375.00 for rolls. To help you decide which rolls to purchase you must determine the cost for each package. Complete the table and circle the least expensive way to purchase each type of roll.

Hotdog Rolls	8 pack-\$ <b>3.</b> 49	10 pack-\$4.25	20 pack-\$8.96
Number of packs needed		本意本。	
Show the math			
Total Cost			
Hamburger Rolls	5 pack-\$3.80	10 pack-\$6.97	15 pack-8.13
Number of packs needed			
Show the math			
Total Cost			

#### Budget Break #1

Periodically, you must return to the budget sheet and do your calculations. It is time to enter the cost for meat and rolls. After you enter the actual cost, you must calculate the difference as + (over) or – (under) from the budgeted cost.

Purchases	Budgeted cost	Actual cost	Difference +/-
Meat	\$900.00		
Rolls	\$375.00		
Beverages	\$125.00		
Condiments	\$85.00		
Paper Goods	\$250.00		
Rented Chairs	\$1,850.00		
Rented Tables	\$2,015.00		
Activities	\$550.00		
Total	\$6,150.00		

#### Condiments

Version 3, page 10

Mr. Murphy has large pump dispensers he will fill with condiments for the barbecue. Each dispenser can hold a ½ gallon of mustard or ketchup. Read and answer the questions about the condiments.

I. The ketchup comes in quart-sized bottles. How many bottles will the dispenser hold at one time? Explain.

2. Mr. Murphy suggests that you buy 8 bottles of ketchup. Each bottle costs \$6.25. However, if you purchase 6 bottles, you get one free. How much money will it cost to purchase ketchup? Show how you know.

3. The mustard bottles are 16 ounces each and cost \$3.55. Mr. Murphy thinks you will need 1 ½ times as many bottles of mustard as ketchup. How many bottles will you buy? Show how you know.

4. Determine the cost for the mustard. What is the difference in cost between the ketchup and mustard?

5. Mr. Murphy asks you to determine how many bottles of mustard will fit into the dispenser.



#### Budget Break #2

Now that you have determined the cost of the water, condiments and paper goods, it is time to enter their costs in the budget. First, enter the costs from Budget Break #1 for meat and rolls. Then. enter the costs for water, condiments and paper goods. Don't forget to calculate the differences, +/-.

Purchases	Budgeted cost	Actual cost Difference +/-
Meat	\$900.00	
Rolls	\$375.00	
Beverages	\$125.00	
Condiments	\$85.00	
Paper Goods	\$250.00	
Rented Chairs	\$1,850.00	
Rented Tables	\$2,015.00	
Activities	\$550.00	
Total	\$6,150.00	

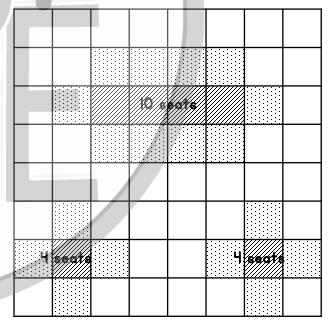
Mr. Clifford will rent the tables for a flat fee of \$1,995.00. The tables are square and can seat one person on each side. Tables can be pushed together to form rectangles or larger squares. Your teachers are asking each student to design one table arrangement with seating options for the party. Use the graph paper pages to plan and draw your design for the barbecue. Tape two pages together for more space if necessary.

Each square table is the size of one square on the graph paper. You must assign squares to tables and seats. As you arrange your tables, you must leave enough space for people to get in and out of their seats. Use a pencil to draw your shapes on the grid. Once you are happy with your design, create a key to help your teachers understand your plan. Be sure to shade the tables and chairs according to your key.

How many tables do you need from Mr. Clifford's store?

Use the example provided to help you get started. You must have the number of seats listed for each table. Your plan must include the correct number of seats for the party.

KEY: = table = chair



Before you can plan for activities, you must know how much money you have spent so far. Fill in the table with the costs for the meat, rolls, water, condiments and paper goods. Then write in the costs to rent the chairs and tables. Find the total and the +/- for the budgeted costs.

Purchases	Budgeted cost	Actual cost	Difference +/-
Meat	\$900.00		
Rolls	\$375.00		
Beverages	\$125.00		
Condiments	\$85.00		
Paper Goods	\$250.00		
Rented Chairs	\$1,850.00		
Rented tables	\$2,015.00		
Activities	\$550.00		
Total	\$6,150.00		

I. The budgeted cost for activities is \$550.00. What is the actual amount you can spend?

#### Amazing Amos

Mr. Bell has a friend who is a magician. His name is Amazing Amos. He is available to come to the celebration to perform a magic show. He offers three shows of different lengths. Review the options to help you decide which show is best for the barbecue.

	Amazing Amos	** * *
Show 1	Snakes Alive	55 minutes
Show 2	Disappearing Doves	1 hour & 20 minutes
Show 3	Seeing is Believing	75 minutes

l. Mr. Bell suggests that before you decide which show to schedule, you should consider the time for each magic show. The celebrations must be cleaned up by 8:45 p.m. If Amazing Amos begins at 6:15 p.m., what time will each of his shows end? Show on the number lines.



It is time to plan the schedule for this year's *Campfire Jun* celebration. Mr. Bell has gotten approval to run the event from 3:30 pm-8:45 pm. This includes time to set-up and clean up. He has given you approximate times for each activity. Add the time that each event starts and ends to the table.

activity	Jotal Jime	Start time End time
Set-up	25 Minutes	**·
Races/Games	1½ Hours	
Transition for dinner	8 Minutes	
Barbecue	42 Minutes	//
Magic Show	1 ¼ Hours	
Awards	45 Minutes	$\mathcal{A}$
Clean-up	½ an hour	

- I. Which magic show will be the best one to pick based on the schedule? Explain how you know.
- 2. What is the total amount of time for the celebration including clean up and set-up? Show in minutes and hours/minutes.

Total time in minutes:

Total time in hours/minutes:

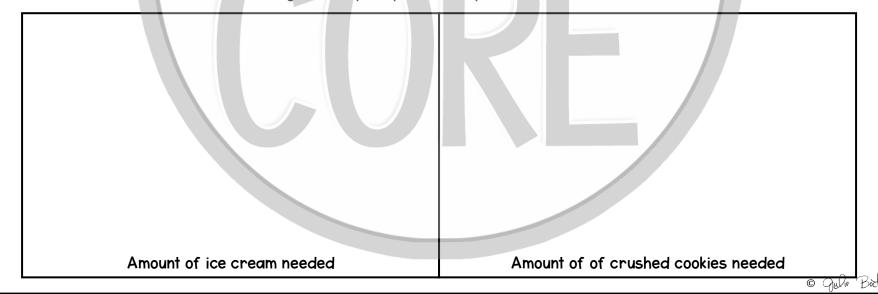
#### Last minute details - word problems

Version 3, page 20

l. Your mom works for a food distributor. A week before the barbecue, she tells you that she can donate 5 boxes of individual snack bags. One box holds a variety of snacks like potato chips, pretzels, and popcorn. Each box holds 87 bags of snacks. How many individual snack bags will each person get? Show the math.



- 2. Will there be any bags left over? If so, how many?
- 3. Martin's dad owns a Dairy Queen and offers to set up a Blizzard station. Each Blizzard needs I I/2 cups of ice cream and 2/5 of a cup of crushed cookies. Help Martin calculate the amount of ice cream and crushed cookies his dad should bring to the party for everyone to have one Blizzard.



#### Challenge I - Relay Races

- I. On the night of the party, Mr. Green set up relay races for all students. He created teams of 6 students each. Counting just students, how many teams were there in all?
- 2. Each team ran a relay around the soccer field. The top 5 teams and the runners' times are listed in the table below. Your task is to determine each team's total time in minutes/seconds. Then, rank the teams in order from  $I^{st}$  through  $5^{th}$ . Calculate the team's total time in the box below the individual scores. Then write the team rank in the bottom box.

The Razors	We Got This	The Cheetahs	Go Dog Go	Track Stars
Elle 2 min. 23 sec.	Eric 2 min. 9 sec.	Amy 2 min. 4 sec.	Lenny 2 min. 35 sec.	Lucy 1 min. 46 sec.
Ray 1 min. 59 sec.	Jan 2 min. 24 sec.	Dan 1 min. 56 sec.	Meg 1 min. 51 sec.	Will 1 min. 52 sec.
Mel 2 min. 18 sec.	Ron 1 min. 48 sec.	Bria 2 min. 15 sec.	Jon 1 min. 53 sec.	Cara 2 min. 44 sec.
Max 2 min. 7 sec.	Mia 2 min. 12 sec.	Nate 2 min. 27 sec.	Barb 2 min. 15 sec.	Ken 1 min. 58 sec.
Kim 1 min. 51 sec.	Joe 2 min. 2 sec.	Jill 1 min. 49 sec.	Norm 2 min. 29 sec.	Belle 2 min. 37 sec.
Raul 2 min. 14 sec.	Kiana 1 min. 58 sec.	Tyler 2 min. 16 sec.	Aly 2 min. 30 sec.	Nick 2 min. 24 sec.

#### Challenge 2 - Outside games, part 1

In addition to the relay races, Mr. Green organized several outside games and activities for students. He painted lines on the field to divide the space into stations. Use the diagram to answer the questions about the field.

52.5 feet

I. Mr. Green asked for help to determine the perimeter of the entire field. How would you explain the steps to find the perimeter of the field?

e entire field.
field?

Station 3

Station 2

Station 3

Station 4

Station 4

2. What is the perimeter of the entire field?

3. Stations 2 and 3 have the same dimensions. Determine the perimeter of Station 2.

Perfect Part	z Planners		Name:		
Self Reflection: problems and activities? Did you enjoy this activity	Write a reflection of Explain what you for	f your experienc und easy to do a			
		* . *.*	***	***	
		40			
			V		

Rate this project
Circle the statement you most agree with.

I am ready for something harder

It was just right

I found this challenging



## Perfect Party Planners

**Self Reflection Rubric:** Select the parts of the rubric that express how you rate yourself on this Project Based Learning Activity. Circle or shade your selections.

I felt very confident about the math in this project.	I felt pretty good about my ability to complete the math in this project.	I felt a lot of the math in this project was too hard for me to do alone.
I understood all of the math and did not need help to complete the problems.	I understand most of the math but needed a little help to solve some of the problems.	I understood some of the math but needed help to complete most of the problems.
I easily used many strategies to solve the math problems efficiently.	I needed some help to use the best strategies for solving the math problems.	I had trouble understanding the best way to solve many of the math problems.
I feel I am ready for a harder math project.	I feel I would like to spend more time practicing similar math problems.	I feel I need assistance to work on similar math problems.

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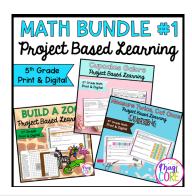
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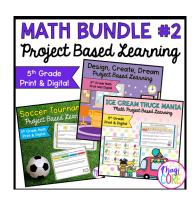
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