

ORGANIZE A BASEBALL TOURNAMENT

A REAL LIFE MATH PROJECT

BEST-SUITED TO SECOND & THIRD GRADE



CREATED BY SHELLEY GRAY

ABOUT THIS RESOURCE

Are you looking for a way to reinforce number sense concepts in an engaging way that helps your students make connections? "Organize a Baseball Tournament" is a **real-life math project** where students will complete eleven different math-related tasks.

These activities can be used as a package, or in isolation. They work great as a math center, small-group lesson, early finisher activity, or partner activity.

A digital version is also included that is optimized for digital use with Google Slides™.

Take a look at what you'll find inside this math project:

TASK #1: TOURNAMENT ADVERTISING

You're in charge of designing a poster to advertise the annual baseball tournament. You want to make sure that lots of fans attend.

TASK#2: THE GAME SCHEDULE

The first task is to plan the schedule! There will be four games, but you will also need to allow time for a lunch break.

Skills: time to the hour and half hour, elapsed time

TASK #1 **TOURNAMENT ADVERTISING**

You're in charge of designing a poster to advertise the annual baseball tournament. You want to make sure that lots of fans attend. Design your poster here.

TASK #2 **THE GAME SCHEDULE**


The first task is to plan the schedule! There will be four games, but you will also need to allow time for a lunch break.


Use the information to fill in the schedule.


- The first game will begin at 9:30 am. It will be one hour long.
- The second game will begin 30 minutes after the end of the first game and will be one hour long.
- There will be a one-hour lunch break at 12:00 pm.
- The third game will begin at the same time as the lunch break ends. It will be one hour long.
- The fourth game will begin 30 minutes after the end of the third game. It will be one hour long.


Event	Start Time	End Time
Game #1		
Game #2		
Lunch Break		
Game #3		
Game #4		

Each of the clocks below shows a start time for one of the games. Which game start time does each one represent?









TASK #3: STOCKING THE CONCESSION STAND

The concession stand will be selling lunch and snacks for the day. It's your job to stock it up and get it ready for the day.

Skills: place value, word form, expanded form, representing numbers

TASK #3 STOCKING THE CONCESSION STAND
The concession stand will be selling lunch and snacks for the day. It's your job to stock it up and get it ready for the day.

The food order arrives and now it's time to put it away. But first you count it.

	Hundreds	Tens	Ones
Hot Dogs	2	4	5
Hamburgers	1	7	0
Sandwiches	1	0	0
Chips	3		
Granola Bars	1		
Fruit Cups	1		
Juice Boxes	0		
Bottled Water	2		
Canned Drinks	2		

How many **granola bars** are in the order? Write it in **word form**.

How many **hot dogs** are in the order? Write it in **expanded form**.

You ordered 250 hot dogs, but it looks like you many more do you need?

The canned drinks are in packages of 50. How many packages do you need?

How many **hamburgers** are in the order? Write it in **word form**.

The **juice boxes** are in packages of 20. Draw a picture to show how many packages of juice boxes you ordered.

Represent the number of **hamburgers** you ordered with **base ten blocks**.

How many **bottled waters** are in the order? Write it in **expanded form**.

The **granola bars** are in packages of 25. Draw a picture to show how many packages of granola bars you ordered.

How many **hot dogs** are in the order? Write it in **expanded form**.

How many **hot dogs** are in the order? How do you know?

TASK#4: ENTRY FEES

Each baseball team has to pay an entry fee when they arrive at the tournament. There are six teams in all.

Skills: money, making 100

TASK #4 ENTRY FEES
Each baseball team has to pay an entry fee when they arrive at the tournament. There are six teams in all.

The entry fee to play in the tournament is \$100 per team.

TEAM #1
Team #1 pays their entry fee with five bills. What could the bills be?

TEAM #2
Team #2 paid with four bills. Three of them are shown below. What is the fourth bill?

TEAM #3
Team #3 didn't have the exact amount, so they gave the organizer \$110.00. How much change should they get back?

TEAM #5 AND #6
Teams #5 and #6 each gave the organizer \$100.00. Write the amount in word form.

TASK #5 ADMISSION COSTS
Fans have come from near and far to cheer on this year's baseball teams!

Tournament Admission

ADULTS: \$10
KIDS: \$5

Here are the admission costs. Fans pay as they come in the gate.

First, a group of 6 adults comes to the gate. Skip count by 10's to show their total admission cost.

Then one adult and one child come to the gate. Write a number sentence to show their total cost.

How much would admission cost for a family of 2 adults and 3 kids? Write a number sentence.

How does the cost of a child ticket compare to the cost of an adult ticket?

TASK#5: ADMISSION COSTS

Fans have come from near and far to cheer on this year's baseball teams! Let's see how it's going at the admission gate.

Skills: skip-counting, using 5 and 10

TASK #6: PLAY BALL


The tournament has begun! Let's take a look at what's happening on a few of the baseball diamonds.

Skills: arrays, representing numbers, addition

TASK #6
PLAY BALL!
 The tournament has begun! Let's take a look at what's happening on a few of the baseball diamonds.

In Diamond #1, the Grenfield Cougars are up against the Mustangs!

This array represents the number of fans watching in Diamond #1.



Write an addition equation to represent the fans:

5 more fans come to watch. How many fans are there now?

In Diamond #2, it's the Maple City Cobras against the Mustangs!

Maple City Cobras have 9 baseball players. The Mustangs have 11 players. There are also 2 coaches on each team.

How many players and coaches are there in all on the field?

Represent this number in two different ways.

©Shady Grove

In Diamond #3, the Oakdale Rangers are playing against the Lake Point Jets.

There were 6 innings in the game. This chart shows the number of runs for each team. Find the total runs for each team.

INNING NUMBER	Runs for Oakdale Rangers	Runs for Lake Point Jets
1 st Inning	4	5
2 nd Inning	2	8
3 rd Inning	3	3
4 th Inning	7	5
5 th Inning	4	2
6 th Inning	6	6
TOTAL RUNS:		

Who won the game? _____

How do you know? _____

Represent the **total runs** for the **Oakdale Rangers** with base ten blocks:

Represent the **total runs** for the **Lake Point Jets** with base ten blocks:

©Shady Grove

TASK #7: SKILLS COMPETITION

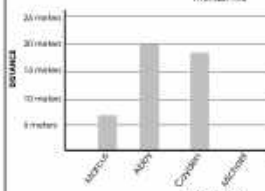
The skills competition is a fun way for the players to compete in hitting, throwing, and running contests.

Skills: interpreting data on a bar graph, comparing data, base ten blocks, addition, picture graph, skip-counting by 5's

TASK #7
SKILLS COMPETITION
 The skills competition is a fun way for the players to compete in hitting, throwing, and running contests.

The first event is the hitting competition. Players will hit three balls. The player with the farthest hit wins. This graph shows the farthest hit of 7 players.

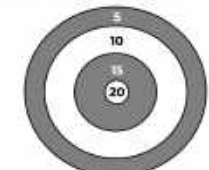
FARTHEST HIT



Use the bar graph to complete the tasks.

- Elzo hit the ball 15 meters. Fill in the bar graph.
- Michael hit the ball 25 meters. Fill in the bar graph.
- Who hit the ball the farthest?
- How do you know?
- How far did Marcus hit the ball?

The next event is the throwing competition. Players will throw three balls at the target and get points for the spaces they hit.



Represent the total points for each player.

Player Name	Throw #1	Throw #2	Throw #3	Total Points
Elza				
Michael				
Marco				
Andi				
Daniel				

©Shady Grove

The final event is the running competition. Players will compete in a race twice around the bases.

1 icon = 5 seconds

Player Name	Time to Run Twice Around the Bases
Gabriel	
Sandy	
Todd	
Andi	
Daniel	

Skip count by 5's to show how long it took Daniel to run around the bases twice:

How much faster was Andi than Todd?

Who won the competition?

Which two players tied? What was their time?

©Shady Grove

TASK #8: SLUGGER'S CONCESSION STAND

Welcome to Slugger's Concession Stand – where we'll hit your lunch order out of the park! Let's look at some of the orders from the day.

Skills: money, addition

TASK #8 SLUGGER'S CONCESSION STAND

Welcome to Slugger's Concession Stand!

Where we'll hit your lunch order out of the park!

ITEM	PRICE
Hot Dogs	\$2.50
Hamburgers	\$3.00
Sandwiches	\$2.00
Chips	\$1.00
Granola Bars	\$1.00
Fruit Cups	\$1.50
Juice Boxes	30 cents
Bottled Water	\$1.00
Canned Drinks	\$1.50

Write the total for each lunch order.

ORDER #1:	ORDER #2:	ORDER #3:
2 hot dogs 2 bottled waters	1 sandwich 1 bag of chips 1 canned drink	3 hamburgers 2 juice boxes 1 bottled water
Total Cost:	Total Cost:	Total Cost:

A player has \$7 to spend at the concession stand. What are two different options for what he can buy?

A family of 4 comes to the concession stand with \$40. What could they buy?

A player spent this much of the concession stand. What do you think she bought?

One of the players spent \$4.50 on lunch, but paid with a \$10 bill. How much change will he get back? Draw the change.

TASK #9: SOLVING CHALLENGES

When you organize a big tournament like this, there are sure to be some problems throughout the day!

Skills: problem-solving, time, representing numbers, addition and subtraction

TASK #9 SOLVING CHALLENGES

When you organize a big tournament like this, there are sure to be some problems throughout the day!

Games are running a bit late in the afternoon. The 1:30 pm game starts 15 minutes later than it was supposed to. What time does the game start?

Write the time.

Draw the hands.

At the end of the day awards ceremony, each player is supposed to get a medal, but it seems like there won't be enough. So far you've given out 55 medals. You have 90 medals in all.

How many more medals do you have left?

These blocks show the number of players who still need a medal.

Are there enough medals?

One of the players on the Maple City Cobras gets hurt in the second game. Now there are an odd number of players on the team. There are more than 8 players but less than 16 players. How many players could there be on the team now?

TASK #10: TOURNAMENT CHAMPIONS

The tournament is over and it's time to figure out who won!

Skills: using clues to eliminate information

TASK #10 TOURNAMENT CHAMPIONS

The tournament is over and it's time to figure out who won!

Use the clues to figure out how each team placed.

TEAM NAME	1 st	2 nd	3 rd	4 th	5 th	6 th
Grenfield Cougars						
Maple City Cobras						
Danville Mustangs						
Oakdale Rangers						
Lake Point Jets						
McNally Wildcats						

- The Mustangs did not get third or fourth place.
- The McNally Wildcats were one of the top 3 teams.
- The Cougars did not get first or second place.
- The Lake Point Jets did not place in the top 5 teams.
- The Rangers got second place.
- The Danville Mustangs did not place first.
- The Maple City Cobras won the tournament!

Which team placed in...

first place? _____

third place? _____

second last place? _____

TASK #11: DAILY REVENUE

The tournament was a huge success! Now you will need to figure out if you made enough money to cover the day's expenses.

Skills: word form, revenue or expense, addition, subtraction

This section will serve as an extra challenge using numbers in the thousands in some parts.*

TASK		
DAILY REVENUE		
The tournament was a huge success! Now you will need to figure out if you made enough money to cover the day's expenses.		
Fill in the chart with the information from the next two pages.		
	REVENUE (money that you earned)	EXPENSES (money that you paid)
Entry Fees		
Sluggers's Concession Stand		
Player Medals		
Player Prizes		
Gate Admission		
TOTALS		
Each team paid a \$100 entry fee to enter the tournament. How much money did you collect?		
Is this revenue or an expense for you? Why?		
Now fill in:		
Sluggers's		
You spent \$200 on player prizes. Write this number in word form.		
Is this revenue or an expense? Why?		
Now fill in the player prizes section on the chart.		
You charged an admission at the gate for each fan. Altogether, the gate collected \$2,000 throughout the day. Write this number in word form.		
Is this revenue or an expense? Why?		
Now fill in the gate admission section on the chart.		
Now add up the revenue and expenses on the chart. Write the numbers here.		
REVENUE: _____		
EXPENSES: _____		
Did you make more money than you spent? How much more?		

Sluggers's concession stand made \$1,000 throughout the day! How many hundreds are in 1,000? Draw a picture.

The food expenses for Sluggers's Concession Stand were \$500. If they made \$1,000, but spent \$500, what was their **profit**? How much did they actually make?

Is the number you wrote in **this box** revenue or an expense? Why?

Sluggers's concession stand ordered 90 medals. How much money did they spend?

©Shelley Gray www.ShelleyGray.com

BONUS: DESIGN THE FIRST PLACE AWARD

What do you think the award certificate for the first place team should look like? Design it below!



©Shelley Gray

www.ShelleyGray.com

PLUS A BONUS ACTIVITY

ANSWER KEYS ARE INCLUDED TO MAKE SELF-CHECKING SIMPLE.

DIGITAL VERSION

The digital version of this math project is optimized for digital use with Google Slides™, including lots of room for typing and moveable pieces to create an interactive experience.

To use with Microsoft TEAMS, save as a PowerPoint first.

Here is a small sample of what you can expect to find in the digital version of this project.

TASK #2: THE GAME SCHEDULE

You're in charge of organizing your community's annual baseball tournament. Your first task is to plan the schedule.

Use the information to fill in the schedule.

- The first game will begin at 9:30 am. It will be one hour long.
- The second game will begin 30 minutes after the end of the first game and will be one hour long.
- There will be a one-hour lunch break at 12:00 pm.
- The third game will begin at the same time as the lunch break ends. It will be one hour long.
- The fourth game will begin 30 minutes after the end of the third game. It will be one hour long.

Event	Start Time	End Time
Game #1	Type here	Type here
Game #2	Type here	Type here
Lunch Break	Type here	Type here
Game #3	Type here	Type here
Game #4	Type here	Type here

Each of the clocks below shows a start time for one of the games. Which game start time does each one represent?

GAME # [#]

GAME # [#]

GAME # [#]

GAME # [#]

TASK #4: ENTRY FEES

Each baseball team has to pay an entry fee when they arrive at the tournament. There are six teams in all.

The entry fee to play in the tournament is \$100 per team.

TEAM #1

Team #1 pays their entry fee with five bills. What could the bills be?

TEAM #2

Team #2 paid with four bills. Three of them are shown below. What is the fourth bill?

\$50

\$20

\$20

Drag the bills.

\$100

\$50

\$20

\$10

\$5

TASK #8: SLUGGER'S CONCESSION STAND

Welcome to Slugger's Concession Stand!

Where we'll hit your lunch order out of the park!

ITEM	PRICE
Hot Dogs	\$2.50
Hamburgers	\$3.00
Sandwiches	\$2.00
Chips	\$1.00
Granola Bars	\$1.00
Fruit Cups	\$1.50
Juice Boxes	50 cents
Bottled Water	\$1.00
Canned Drinks	\$1.50

Write the total for each lunch order.

ORDER #1:

2 hot dogs
2 bottled waters

Show your work here:

Total Cost:

Type here.

ORDER #2:

1 sandwich
1 bag of chips
1 canned drink

Show your work here:

Total Cost:

Type here.

ORDER #3:

3 hamburgers
2 juice boxes
1 bottled water

Show your work here:

Total Cost:

Type here.

WAYS TO USE MATH PROJECTS IN YOUR CLASSROOM:

Math projects are an ideal way to consolidate learning. I recommend using them as an engaging activity AFTER skills have been learned rather than during learning. You will likely find that engagement is very high and that your students ask to do more of these!

There are many ways to use math projects in your classroom. Some of the most popular are:

- a small-group or pairs activity
- a guided math activity to allow you to see where your students are struggling
- a fun, rewarding way to engage your early finishers
- a low-prep, easy-to-implement activity for a substitute teacher

Enjoy!

Shelley Gray

www.ShelleyGrayTeaching.com