

MATH BUNDLE #2

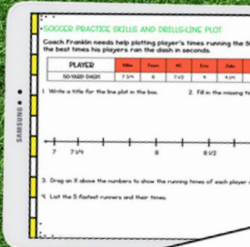
Project Based Learning

3rd Grade
Print & Digital

Soccer Tournament

Project Based Learning

3rd Grade Math
Print & Digital



SOCCER TOURNAMENT SCHEDULE

Below is the time schedule for Saturday's game. It is the same at all four parks. For each game, the first team listed is the home team. There will be a 15-minute break between games.

Game	Time	Home Team	Away Team
1	10:00-10:15 AM	Team A	Team B
2	10:30-10:45 AM	Team C	Team D
3	11:00-11:15 AM	Team E	Team F
4	11:30-11:45 AM	Team G	Team H

1. You are an official for Team A's first game. What time will you arrive at the park? What time will you leave?

2. The City Soccer team is playing at 10:00 AM on the same field you played your first game. How long will it take them to finish their game? What time will they leave?

3. The City Soccer team plays their first game at 10:00 AM. The game ends at 10:15 AM. How long will it take them to finish their game? What time will they leave?

ICE CREAM TRUCK MANIA

Project Based Learning

3rd Grade
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MEASURING ICE CREAM

As a special promotion, you are selling sugar-sweetened ice cream from your ice cream truck. Compare the means of the two ice cream trucks by filling in the correct symbol ($<$, $=$, or $>$) in each comparison below.

ICE CREAM SUPPLY

You receive a large order from your ice cream supplier to ship your truck. The table below shows how many of each ice cream flavor you have right now. Use the information in the table to answer the questions.

Ice cream flavor	Vanilla	Chocolate	Strawberry	Peppermint	Butter Pecan
Number in truck	500	100	200	250	150

1. During a hot week in the summer, you sell 100 blue raspberry popples. How many blue raspberry popples do you have left? Write an equation to show your thinking.

2. You receive a new shipment of 100 Raspberry Pops. How many Raspberry Pops do you have now?

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Soccer Tournament

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SOCCEP PRACTICE SKILLS AND DRILLS-LINE PLOT

Coach Franklin needs help plotting player's times running the 50-yard dash. The table below shows the best times his players ran the dash in seconds.

PLAYER	Mike	Fawn	KC	Eric	Jules	Cole	Lydia	Alex	Lani	Pedro
50-YARD DASH	7 $\frac{3}{4}$	8	7 $\frac{1}{2}$	9	9 $\frac{1}{4}$	10	9 $\frac{1}{2}$	8 $\frac{1}{2}$	7 $\frac{1}{4}$	8 $\frac{3}{4}$

1. Write a title for the line plot in the box.

2. Fill in the missing times across the bottom of the line plot.

3. Drag an X above the numbers to show the running times of each player on Coach Franklin's team.

4. List the 5 fastest runners and their times.

Drag me

ALL-STAR SOCCER TOURNAMENT SCHEDULE-1

Below is the time schedule for Saturday's games. It is the same at all four parks. Each game will be played in two 30-minute halves. There will be a five-minute break between halves.

TIME SLOT 1-8:30 AM TIME SLOT 2-10:00 AM TIME SLOT 3-11:30 AM TIME SLOT 4-1:30 PM

1. You are on Walnut Hill Team 1. Your first game began at 8:40 am because the Northfield Team 1 arrived late. What time did the game end? Solve using the number line. Drag the vertical lines to partition, the text boxes to label, and the half-circles to show your hops.

2. Elm City Team-2 is playing at 10:00 am on the same field you played your first game. How many minutes do they have to warm up before their game starts? Use question 1 to help you answer.

3. Oak Creek Team-2 plays Walnut Hill Team-2 at 1:30 am. The game ends in a 2-2 tie and goes into overtime. They play two 5-minute overtimes. What time does the game end?



Print & Digital Versions



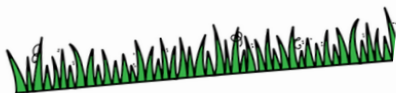
WELCOME TO THE ★ ALL-STAR ★ SOCCER TOURNAMENT!

Walnut Hill is a small town with many families and lots of kids. Soccer is the most popular sport played in Walnut Hill. Most kids begin playing on the Pee-Wee League when they are in kindergarten. Once kids become second graders, they are promoted to the All-Star League. One of the most exciting things about being on the All-Star League is playing in the annual fall tournament that Walnut Hill hosts.

Hosting a soccer tournament is a great opportunity to encourage healthy lifestyle habits like staying fit. It also gives children an opportunity to support teammates, play fairly, and learn good sportsmanship skills. Most of all, it brings players together from different communities and provides an organized way for them to play hard and have fun.

The soccer leagues of Northfield, Elm City, and Oak Creek are invited to bring their teams to Walnut Hill to play in the tournament. There is a lot competition between the four towns, and every coach makes sure that their teams are at their best to play soccer. Kids, coaches, and families always look forward to this fun filled event.

This year's tournament is scheduled for October 8th. You from you and your family. You can't wait for the tourn



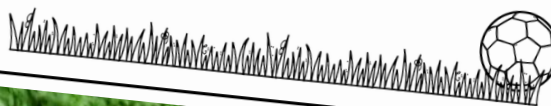
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This year's tournament is scheduled for October 8th. Your father has organized the event this year with help from you and your family. You can't wait for the tournament to get started.



Explores Measurement & Data

BUDGET-ADDITIONAL EXPENSES

The table shows expenses per park for Saturday. Use the data in the table to answer the questions.

	4 Referees per Park	2 Porta-Potties per Park	6 Soccer Balls per Park
Total Cost per Park	\$96.00	\$120.00	\$15.00
What is the total cost for the tournament?	$90 + 90 + 90 + 90 =$		$+ =$
Use break-apart method to calculate.	$6 + 6 + 6 + 6 =$	$+ =$	

1. Use the break-apart method to help your father determine the total expenses for the tournament. Show your work in the table. The first one is started for you.

2. What is the total cost for additional expenses? Show your work below.



FINAL BUDGET

It is time to finish up the budget for the All-Star Tournament. Begin by writing in the total amount of money collected for registration.

Final Budget for the Annual Fall All-Star Soccer Tournament		
Registration Fees Collected		
	Total Expense	Remaining Money
Referees	\$384.00	
Porta-Potties	\$480.00	
Soccer Balls	\$60.00	
Money Remaining after Expenses		

1. Subtract each expense from the amount of money collected in registration fees. Keep a subtotal of remaining money as you work.

2. Any money that is left will be donated to the local soup kitchen. How much money will be donated?



3rd Grade Math Standards Aligned

FOR THE TEACHER

ALL-STAR SOCCER TOURNAMENT is a project-based learning task that involves using standards from *Operations and Algebraic Thinking*, *Numbers in Base Ten*, and *Measurement and Data* to solve problems related to hosting a soccer tournament.

The following standards are addressed:

- 3.OA.A.1 Interpret products of whole numbers.
- 3.OA.A.2 Interpret whole number quotients.
- 3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays and measurement, quantities.
- 3.OA.D.8 Solve 2-step problems using the four operations.
- 3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on properties of operations and/or the relationship between add/sub.
- 3.NBT.A.3 Multiply 1-digit numbers by multiples of 10 in the range 10–90 using strategies based on place value and properties.
- 3.MD.A.1 Tell time, write time to the nearest minutes, and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes.
- 3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with wholes, halves, and fourths of an inch. Show data by making a line plot, where the horizontal scale is marked off in appropriate units.

DIRECTIONS:

1. Assign students to work alone or in small groups.
2. Preview the activity with your students.
3. Allow students class time to complete the activity. This can span over several days.
4. Students have an opportunity to complete optional challenge activities.
5. Students will complete the self-evaluation reflection and evaluation rubric.
6. Allow students an opportunity to share their completed projects with classmates.



Student Self-Assessment

ALL-STAR SOCCER TOURNAMENT

SELF REFLECTION: Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?

Rate This Project

Circle the statement you most agree with.

I am ready for something harder. It was just right. I found this very challenging.

SAMUNG

SELF-EVALUATION RUBRIC: Drag to circle the parts of the rubric that express how you rate yourself on this Project Based Learning Activity.

RUBRIC

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



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Standards Addressed

- 3.OA.C.7 Fluently multiply and divide within 100.
- 3.OA.D.8 Solve 2-step problems using the four operations.
- 3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.
- 3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on properties of operations and/or the relationship between add/sub.
- 3.MD.A.1 Tell time, write time to the nearest minutes, and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes.
- 3.MD.B.3 Draw a scaled picture graph and bar graph to represent data with several categories. Solve problems using the data.
- 3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with wholes, halves, and fourths of an inch. Show data by making a line plot, where the horizontal scale is marked off in appropriate units.
- 3.MD.C.5 Recognize area as an attribute of plane figures and understand concepts of area measurement.
- 3.MD.C.6 Measure areas by counting unit squares.
- 3.MD.C.7 Relate area to the operations of multiplication and addition.
- 3.MD.D.8 Solve real world and mathematical problems involving perimeter

Print & Digital Versions

Finding Perimeter of the Footprint

Your first task is to determine the size and layout of the footprint of your bedroom. The footprint is the space of your room as seen from a bird's eye view (looking down into your room). Knowing the area and perimeter will help you create a plan for furniture and carpet placement. Use this information and the diagram below to answer the questions.

- Find the length of each wall. Show how you determined the length.

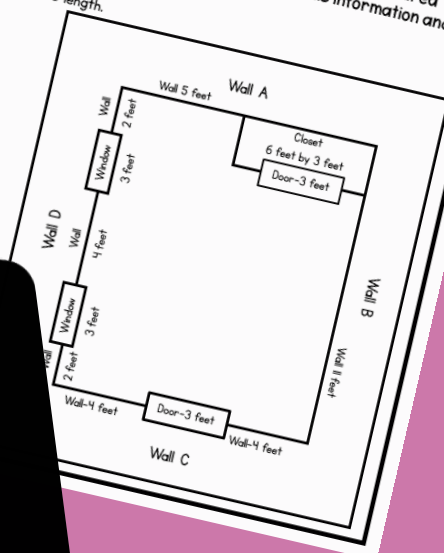
Wall A

Wall B

Wall C

Wall D

- Calculate the perimeter of the room.



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- Find the length of each wall. Show how you determined the length.

Wall A

Wall B

Wall C

Wall D

- Calculate the perimeter of the room.



Aligned to CCSS Math Standards

Bookshelf Word Problems

Version 1, page 6

It is time to arrange your books on your new bookshelf. It has two shelves for books. You want to sort your books by genre. Read the data and shade in the bar graph to show your collections of books. Shade each box on the graph by selecting it and using the paint bucket  tool. Then, answer the questions.

Folktales  Poetry  Fantasy  Non-fiction  Historical Fiction 

Non-fiction														
Poetry														
Fantasy														
Folktales														
Historical fiction														

- What is the total number of books in your collection? Show how you know.
- Is it possible for you to put the same number of books on each shelf? If yes, how many can go on each shelf?
- Since your non-fiction books have more pages, they take up more room on your shelf. If you can only fit this collection on one shelf, how many books do you need to put on the second shelf? Show on the number line. Drag the vertical lines to partition, the text box to label partitions, and the hops to show your math. 



Interactive Elements

Furnishing Your Bedroom

Version 1, page 3

Your parents have given you a budget of \$1,000.00 to redo your bedroom. First, you must decide which pieces of furniture to purchase. There are options for your bed, desk, and bureau. You must select one piece from each group. Your parents say you must buy the bookshelf and rug. Review the furniture options, the measurements, and the prices below. Drag a checkmark to the items you will purchase.



beds



Bed option 1
3 ft. wide, 6 ft. long
\$157.00



Bed option 2
5 ft. wide, 6 ft. long
\$234.00

desks



Desk option 1
3 ft. wide, 2 ft. deep
\$159.00



Desk option 2
4 ft. wide, 1 1/2 ft. deep
\$206.00



Desk option 3
3 1/2 ft. wide, 2 ft. deep
\$185.00

bureau



Bureau option 1
2 ft. wide, 2 ft. deep
\$161.00



Bureau option 2
4 1/2 ft. wide, 1/2 ft. deep
\$210.00



Bureau option 3
3 ft. wide, 1 ft. deep
\$193.00

bookcase



3 ft. wide, 2 ft. deep
\$99.00

rug



8 1/2 ft. wide, 10 ft. long
\$78.00

ICE CREAM TRUCK MANIA

Project Based Learning

3rd Grade
Print & Digital

MEASURING ICE CREAM

As a special promotion, you are selling mega-sized ice creams from your ice cream truck. Compare the masses of the mega ice creams by filling in the correct symbol ($<$, $>$, or $=$) in each comparison below.



$\frac{5}{8}$ kilogram



$\frac{5}{10}$ kilogram



$\frac{3}{4}$ kilogram



$\frac{2}{4}$ kilogram



$\frac{4}{8}$ kilogram



$\frac{1}{2}$ kilogram



$\frac{7}{9}$ kilogram



$\frac{7}{8}$ kilogram



$\frac{4}{6}$ kilogram



$\frac{2}{3}$ kilogram



$\frac{3}{6}$ kilogram



$\frac{5}{6}$ kilogram



ICE CREAM SUPPLY

You receive a large order from your ice cream supplier to stock your truck. The table below shows how many of each ice cream type you have right now. Use the information in the table to answer the questions.

Ice cream type	Chocolate sprinkle cone	Blue raspberry popsicle	Soft serve swirl cone	Pistachio cone	Patriotic Pop
Number in truck	585	490	320	258	164

- During a hot week in the summer you sell 103 blue raspberry popsicles. How many blue raspberry popsicles do you have left? Write an equation to show your thinking.
- You receive a new shipment of 98 Patriotic Pops. How many Patriotic Pops do you have now?
- At the end of the week, you have 112 chocolate sprinkle cones left. How many chocolate sprinkle cones did you sell? Use the shape tool to draw a picture to show your thinking.
- You sell 68 pistachio cones. Then the freezer breaks, and 57 pistachio cones melt. You throw the melted cones away. How many pistachio cones do you have left?



Standards Addressed:

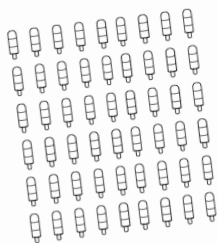
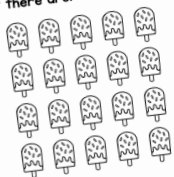
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- 3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities
- 3.OA.D.8 Solve two-step word problems using the four operations
- 3.NBT.A.2 Fluently add and subtract within 1000
- 3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90
- 3.MD.A.1 Tell and write time to the nearest minute and measure time intervals in minutes
- 3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units
- 3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories
- 3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch
- 3.NF.A.3 Explain equivalence of fractions in special cases and compare fractions by reasoning about their size.

Print & Digital Versions



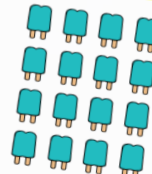
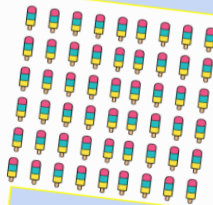
ICE CREAM SUPPLY

Your first step is to determine how many of each menu item you have in the freezer of your ice cream truck. Each frozen treat is shown in an array. Write a multiplication equation about the array. Solve to find how many of each treat there are.



ICE CREAM SUPPLY

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Explores Various Standards-Based Skills

HUNGRY CUSTOMERS

The pictograph below shows how many people purchased ice cream from the truck at each stop today. Use the data in the pictograph to answer the questions.

NUMBER OF CUSTOMERS PER STOP

Highland Street	  
Poplar Drive	     
James Avenue	    
Oak Circle	   

 = 4 customers

1. How many customers purchased ice cream at the James Avenue stop?
2. How many more people purchased ice cream at Poplar Drive than Highland Street?
3. There were 12 more customers at the Fieldstone Lane stop than at the Oak Circle stop. How many people bought ice cream at Fieldstone Lane?
4. How many customers bought ice cream from all the stops listed on the pictograph together?



ICE CREAM TRUCK STOP SCHEDULE

The clocks below show at what times the truck stops on different streets each afternoon. Use the clocks to answer the questions.



Fieldstone Lane



Highland Street



Poplar Drive



James Avenue



Oak Circle

1. At what time does the truck stop on Poplar Drive?
2. How much time passes between the Fieldstone Lane stop and the Oak Circle stop?
3. Due to traffic one day, the ice cream truck arrives 18 minutes late to James Avenue. What time does the truck arrive?
4. You add a new stop on Valley View Way, 36 minutes before the Highland Street stop. At what time do you stop on Valley View Way?



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Student Self-Assessment

SELF EVALUATION

Circle one box per row on the rubric that expresses how you rate yourself on this Project Based Learning Activity.

+	✓	-
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...	I feel I need assistance to work on similar math problems

SELF-REFLECTION

Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?

✓ RATE THIS PROJECT

Drag the checkmark to the statement you most agree with.

I am ready for something harder.

This was just right.

I found this very challenging.

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