ICECREAM TRUCK MANIA

Project Based Learning

2nd Grade Print & Google Slides

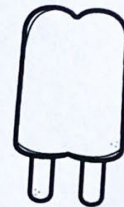### CHALLENGE #1: ICE CREAM SIZES

Sometimes, customers are very hungry and want a large ice cream. Other customers aren't very hungry and only want a small treat. Cut out the ruler and use it to measure the height of each ice cream to the nearest inch. Fill in the table with the data.
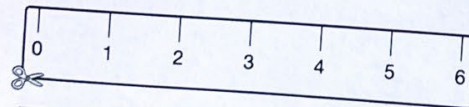
Strawberry soft serve

Tropical fruit popsicle

Blueberry popsicle

Chocolate mini cone

Rainbow scoop stack

0 1 2 3 4 5 6

Ice Cream Type	Strawberry soft serve	Tropical fruit popsicle	Blueberry popsicle	Chocolate mini cone	Rainbow scoop stack
Height to the					

MagiCore

ICE CREAM SUPPLY

want to feature more flavors and types of treats in your menu. Below are new types of ice cream you ca
stock your truck. You want to order exactly 100 new treats. Determine how many of each type you would li
fill in the space in the table. Keep track of how many you have ordered to be sure you reach exactly 100.

Ice Cream Type	Number Ordered	Running Total of Treats
Green apple popsicle		
Rainb...		

ICE CREAM SUPPLY

You receive a large order from your ice cream supplier to stock your truck. The table below shows how
ice cream type you have 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
				28
			32	
		40		
in truck	55			

d you sell 15 blue raspberry popsicles. How many blue rasp
equation to show your thinking.

blue raspberry popsicles le

Pops. How many Patriotic Pops do you

- **Realistic learning situations**
- **Print & Go, Low Prep**
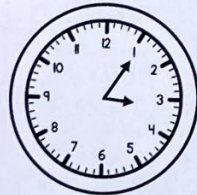
ICE CREAM TRUCK STOP SCHEDULE

You decide to bring your ice cream truck to the neighboring town, Mapledale, on Saturdays between 10 am and 12 pm. Below is a map of Mapledale. Choose 4 new stops for your ice cream truck in Mapledale that you think will attract many customers. Label each stop on the map. On the table, create a schedule for the Mapledale stops. Keep in mind how much time you will need to spend at each stop and how long it will take you to travel from one stop to the next.
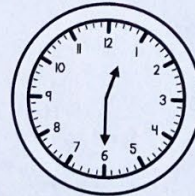
School

Community Pool

Café

Grocery Store

Stop	Time	Show on Clock
#1		

ICE CREAM TRUCK STOP SCHEDULE

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

Fieldstone Lane   Highland Street   Poplar Drive   James Avenue   Oak Circle
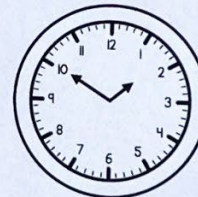
1. Do the clocks show time in AM or PM? How do you know?

PM because it is the afternoon

2. At what time does the ice cream truck stop on Poplar Drive?

1:50 PM

3. Due to traffic, the ice cream truck arrives ten minutes late to Fieldstone Lane. What time does the truck arrive?

3:15 PM

Meaningful practice of second grade math skills.

Promotes critical thinking and problem solving.
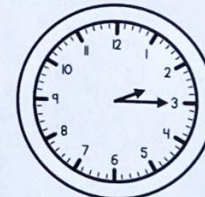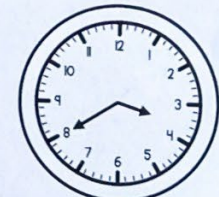
CHALLENGE #1: ICE CREAM SIZES

Five customers order ice cream cones from the truck. However, instead of ordering them as usual, they ask you to make ice cream cones that are a certain height! Draw any number of scoops on top of each cone to reach the desired height. Use the ruler to ensure that each cone is the correct height. Color your ice cream scoops and cones.
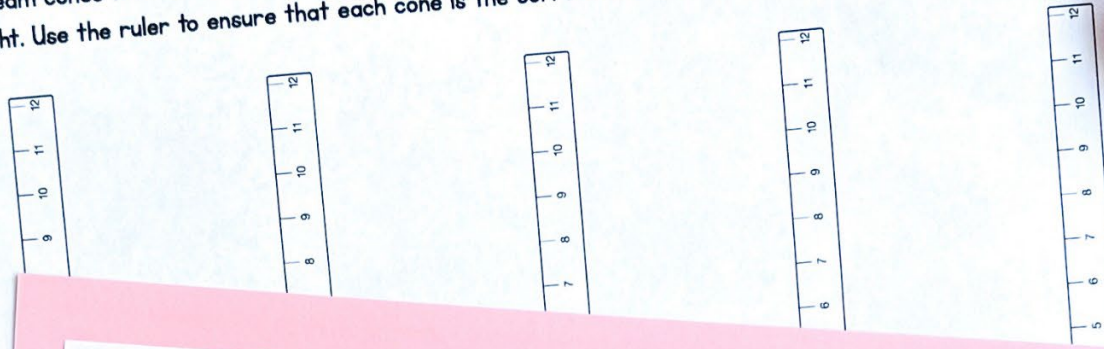
Sometimes, customers are very hungry and want a large ice cream. Other customers aren't very hungry and only want a small treat. Cut out the ruler and use it to measure the height of each ice cream to the nearest inch. Fill in the table with the data.

Strawberry
soft serve

Tropical fruit
popsicle

Blueberry
popsicle

Chocolate
mini cone

Rainbow

0   1   2   3   4   5   6

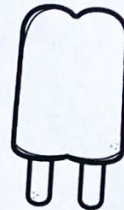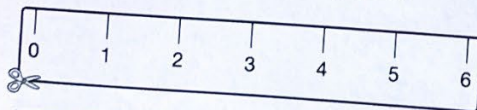Challenge activities push students who are ready for a challenge.

CHALLENGE #3: TOPPINGS GALORE

You want to offer some new ice cream toppings on your ice cream truck. You ask your toppings supplier which toppings are available. The table below shows your purchase price and selling price for each topping.

Topping	Price to Purchase from Supplier	Price to Sell to Customers	Profit (How much you earn from every topping sold)
Marshmallows	10¢	20¢	

CHALLENGE #3: TOPPINGS GALORE

The menu board below shows the base price of each ice cream, plus how much extra each topping costs. Use the prices on the menu to answer the questions.

MENU

Ice cream....$1 per scoop

In a cup .... No charge

In a cone ....80¢

Cherry............. 50¢ each

Cookie bits ....75¢

Sprinkles ....60¢

Fresh fruit $1

1. Yusef orders two scoops of ice cream in a cone. He asks for hot fudge, whipped cream, and sprinkles. He pays for it with a $10 bill. How much change does Yusef get back?

$6.25

2. Daniela wants three scoops of ice cream in a cup with fresh fruit, cookie bits, and a cherry. She has a coupon for one free topping. To which of her toppings should she apply the coupon to get the lowest price? How much will her ice cream cost after the coupon?

Fresh fruit $4.25

3. Paolo has $5. He knows he wants two scoops of ice cream in a cone. Name

Makes differentiation a breeze!

CHALLENGE #2: ICE CREAM FLAVORS

Your ice cream truck is such a success that you decide to create your own line of ice cream flavors. Answer the two-step word problems.

...cream, you need 22 gallons of cream and 3 times as many gallons of milk

...together for one batch of ice cream?

CHALLENGE #2: ICE CREAM FLAV

The table below shows how many containers of each ice cream flavor you sold in one week, but some i... missing. Use the clues to determine the missing numbers and fill in the table.

Ice Cream Flavor	Raspberry Dragon Fruit	Cinnamon Apple Cobbler	Brownie Batter Explosion	Rainbow Sherbet	Mango Vanilla Swirl	Almond Coconut Crunch	Strawberry Cheesecake Delight
Number of Containers Sold	48	12	54	9	33	36	42

Clues:

1. You sold 6 times more containers of Brownie Batter Explosion than Rainbow Sherbet.
2. You sold 12 containers more of Raspberry Dragon Fruit than Almond Coconut Crunch.
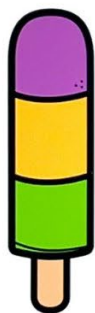3. ...

CHALLENGE #3: TOPPINGS GALORE

Digital Version in Google Slides

CHALLENGE #1: ICE CREAM SIZES

Sometimes, customers are very hungry and want a large ice cream. Other customers aren't very hungry and only want a small treat. Drag the ruler to measure the height of each ice cream to the nearest inch. Fill in the table with the data.

Strawberry soft serve

Tropical fruit popsicle
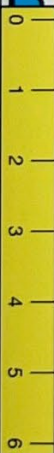
Blueberry popsicle

Chocolate mini cone

Rainbow scoop stack

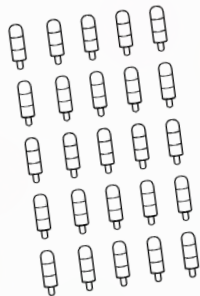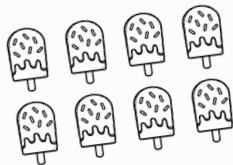| Ice Cream Type	Strawberry soft serve	Tropical fruit popsicle	Blueberry popsicle	Chocolate mini cone	Rainbow scoop stack
Height to the nearest inch					

© Jolie Bethune

- 2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems.
- 2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.
- 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s.
- 2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits
- 2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- 2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- 2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies.
- 2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories.
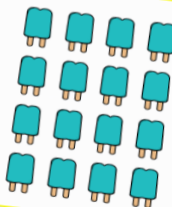
ICE CREAM SUPPLY

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 an addition equation about the array. Solve to find how many of each treat there are.

ICE CREAM TRUCK STOP SCHEDULE

You decide to bring your ice cream truck to the neighboring town, Mapledale, on Saturdays between 10 am and 12 pm. Below is a map of Mapledale. Choose 4 new stops for your ice cream truck in Mapledale that you think will attract many customers. Drag to label. On the table, create a schedule for the Mapledale stops. Keep in mind how much time you will need to spend at each stop and how long it will take you to travel from one stop to the next.

Drag me

STOP #1

Map of Mapledale:
- School
- Community Pool
- Cafe
- Public Library
- Park
- Houses
- Grocery Store
- Police Station
- Hotel

Stop	Time	Show on Clock
#1		AM PM :
#2		AM PM :
#3		AM PM :
#4		AM PM :

© Giulia Barbosa

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	

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 3 more customers at the Fieldstone Lane stop than at the Oak Circl[e] stop. How many people bought ice cream a[t] Fieldstone Lane?

4. How many customers bought ice cream from all the stops listed on the pictograph together?

COUNTING MONEY

An important part of running the ice cream truck is keeping track of the money. The prices of some treats are in the table. Use the information to answer the questions below.

Ice cream type	Chocolate sprinkle cone	Blue raspberry popsicle	Soft serve swirl cone	Pistachio cone	Patriotic Pop
Price	$2.05	$1.15	$2.25	$1.85	99¢

1. Jeannette buys a soft serve swirl cone. She gives you two one-dollar bills and one coin. What coin does Jeannette give you to reach the exact price of her cone?

2. Mr. Petrakis buys a pistachio cone. He gives you two dollars. How much change do you owe Mr. Petrakis? Explain what coins you will give Mr. Petrakis in change.

3. Emilio wants to buy a Patriotic Pop. He has three quarters, two dimes, a nickel, and four pennies. Does he have enough money? How do you know?

4. You have an ice cream sale. Each type of ice cream is one dollar off. How much does a chocolate sprinkle cone cost now? How could you pay for it using only coins?

© Gb Be

CHALLENGE #1: ICE CREAM SIZES

Five customers order ice cream cones from the truck. However, instead of ordering them as usual, they ask you to make ice cream cones that are a certain height! Drag any number and flavor of scoops on top of each cone. Use the ruler to ensure that each cone is the correct height.

Juliana wants an ice cream that is 5 inches tall.

Tyrone wants an ice cream that is 7 inches tall.

Miranda wants an ice cream that is 4 inches tall.

Juan wants an ice cream that is 9 inches tall.

Peyton wants an ice cream that is...

Drag me ↷

Strawberry   Mint   Chocolate   Blue raspberry   Lemon   Blackberry

CHALLENGE #2: ICE CREAM

Your ice cream truck is such a success that you decide to create your own line of...

step word problems.

1. Yo
bu
pe

2. To
of
co

3. In
sel
mo
Ho

CHALLENGE #2: ICE CREAM

The table below shows how many containers of each ice cream flavor... missing. Use the clues to determine the missing numbers from the t...

Ice Cream Flavor	Raspberry Dragon Fruit	Cinnamon Apple Cobbler	Brownie Batter Explosion	Rai... Sh...
Number of containers sold			54	

Clues:
1. You sold 19 more containers of Strawberry Cheesecake Delight than Brownie Batter Explosion.
2. You sold 11 containers less of Rainbow Sherbet than Almond Coconut Crunch.
3. You sold 23 containers less of Raspberry Dragon Fruit than Strawberry Cheesecake Delight.
4. The difference in containers sold between Raspberry Dragon Fruit and Rainbow Sherbet is also how many more containers of Mango Vanilla Swirl you sold than Almond Coconut Crunch.
5. The number of Cinnamon Apple Cobbler containers sold is the amount of Rainbow Sherbet and Brownie Batter Explosion put together.

Use this area to show your work

© Julie Bochese

ICE CREAM TRUCK STOP SCHEDULE

The clocks below show at what time the truck makes stops on different streets each afternoon. Use the clocks to answer the questions.
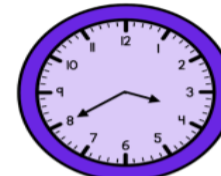
Fieldstone Lane	Highland Street	Poplar Drive	James Avenue	Oak Circle

1. Do the clocks show time in AM or PM? How do you know?

2. At what time does the ice cream truck stop on Poplar Drive?

3. Due to traffic, the ice cream truck arrives ten minutes late to Fieldstone ___e. What time does the truck arrive?

4. Drag the streets to place them in order from the earliest stop to the lat___ ___op.

James Avenue   Oak Circle   Highland Street

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 ... blems.	I had trouble understanding the best way to solve many of the math problems.
	...end	I feel I need assistance to work on similar math problems

© Julie Bochese

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.

© Julie Bochese

FOR THE TEACHER

ICE CREAM TRUCK MANIA is a project-based learning task that involves using second grade math standards to solve problems related to running an ice cream truck. It was created for students in second grade. The following standards are addressed:

- 2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems.

- 2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

- 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s.

- 2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits

- 2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

- 2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

- 2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies.

- 2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories

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 several days.
4. Allow students an opportunity to complete extra challenge activities (optional).
5. Allow students to complete the self-reflection and evaluation rubric.
6. Allow students an opportunity to share their completed projects.

ICE CREAM TRUCK MANIA

You have been hired to run an ice cream truck! It is your job to stock the ice cream truck with tasty treats, keep track of the money you earned, and serve delicious ice cream to the community in a timely manner!

Here are your tasks:

- Read through the entire packet before beginning.

- Determine how many of each ice cream treat you have in your truck.

- Keep track of your ice cream inventory as you make sales and receive new shipments.

- Place orders for new ice cream treats.

- Answer questions about the ice cream truck's stop schedule.

- Determine a new schedule for the ice cream truck.

- Keep track of the money earned by the ice cream truck.

- Analyze data about the daily profits of the ice cream truck.

- Interpret data about ice cream truck customers from a picture and bar graph.

- Plot data about ice cream truck customers on a bar graph.

- (Optional) Complete the challenge pages.

- Complete the self-reflection and evaluation rubric.
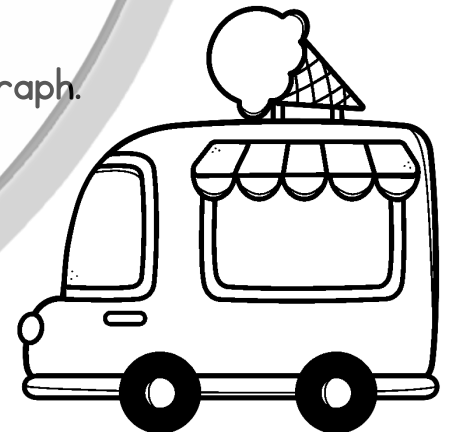
© Julie Bochese

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 an addition equation about the array. Solve to find how many of each treat there are.

_____

_____
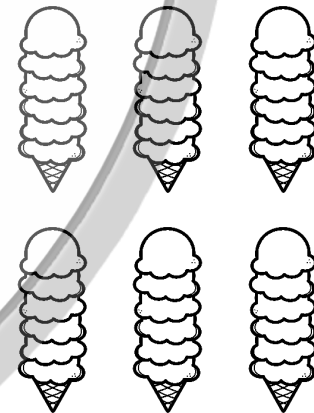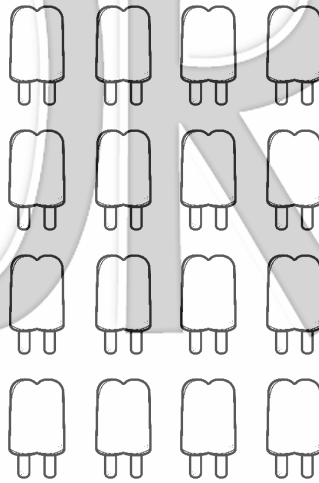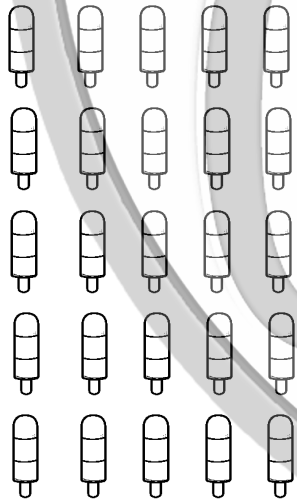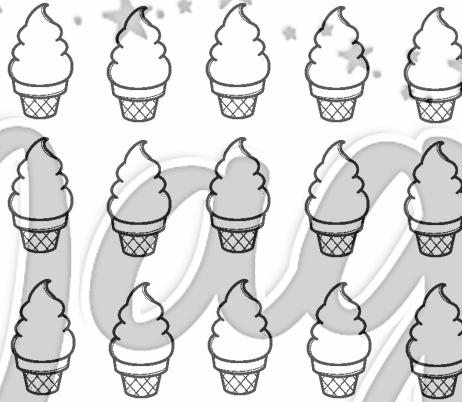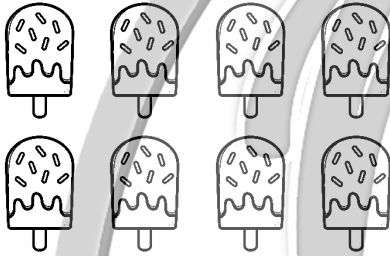
ICE CREAM SUPPLY

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 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	55	40	32	28	64

1. It's a hot summer day, and you sell 15 blue raspberry popsicles. How many blue raspberry popsicles do you have left? Write an equation to show your thinking.

2. You receive a new shipment of 25 Patriotic Pops. How many Patriotic Pops do you have now?

3. At the end of the day, you have 12 chocolate sprinkle cones left. How many chocolate sprinkle cones did you sell? Draw a picture to show your thinking.

4. You sell 6 pistachio cones. Then the freezer breaks, and 14 pistachio cones melt. You throw the melted cones away. How many pistachio cones do you have left?

ICE CREAM TRUCK STOP SCHEDULE

The clocks below show at what time the truck makes stops on different streets each afternoon. Use the clocks to answer the questions.
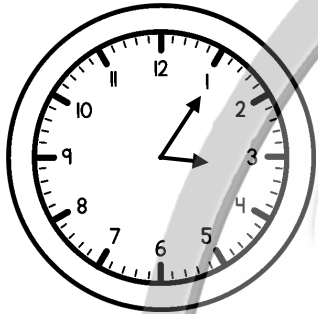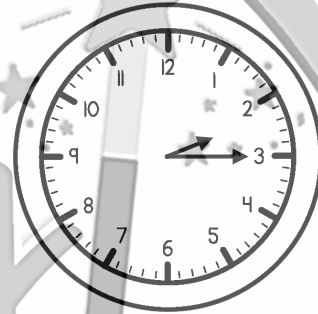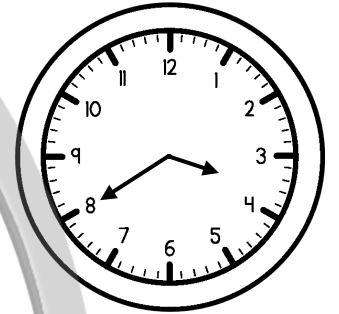
| Fieldstone Lane | Highland Street | Poplar Drive | James Avenue | Oak Circle |

1. Do the clocks show time in AM or PM? How do you know?

2. At what time does the ice cream truck stop on Poplar Drive?

3. Due to traffic, the ice cream truck arrives ten minutes late to Fieldstone Lane. What time does the truck arrive?

4. Write the streets in order from the earliest stop to the latest stop: Oak Circle, Highland Street, James Avenue.
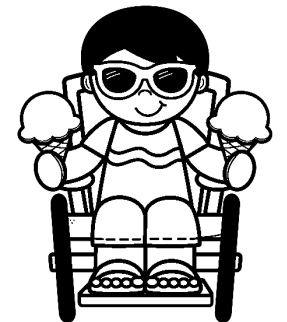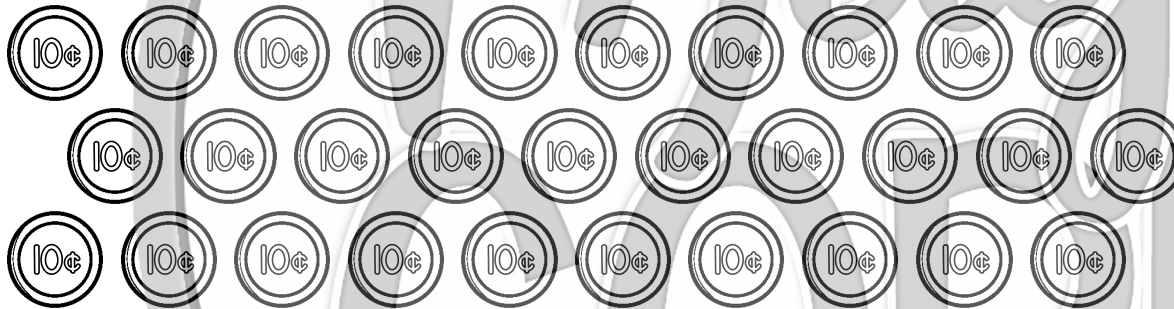
COUNTING MONEY

You are counting your profits after a busy day. Answer the questions about the money you earned.
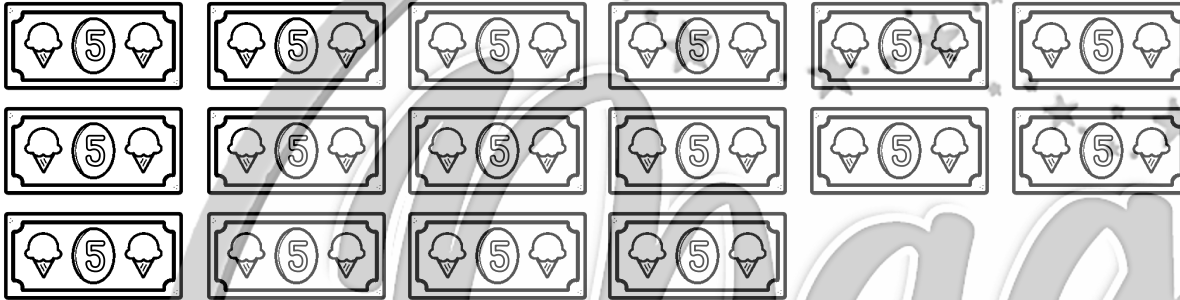
1. Use skip counting to see how much money you have in $5 bills.

2. Use skip counting to see how much money you have in dimes.

3. You have four $20 bills. How much money do you have in $20 bills?

4. There are ten $10 bills in the cash register. How much money do you have in $10 bills?

5. You count the money in your register, and it totals $275. Then you find a $10 bill in your apron pocket and put it in the register. Now how much money is in the register?
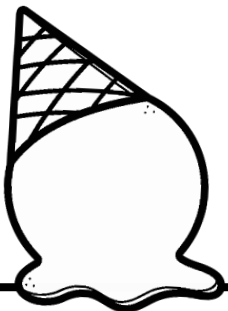
© Julie Bochese

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	🍦🍦🍦🍦
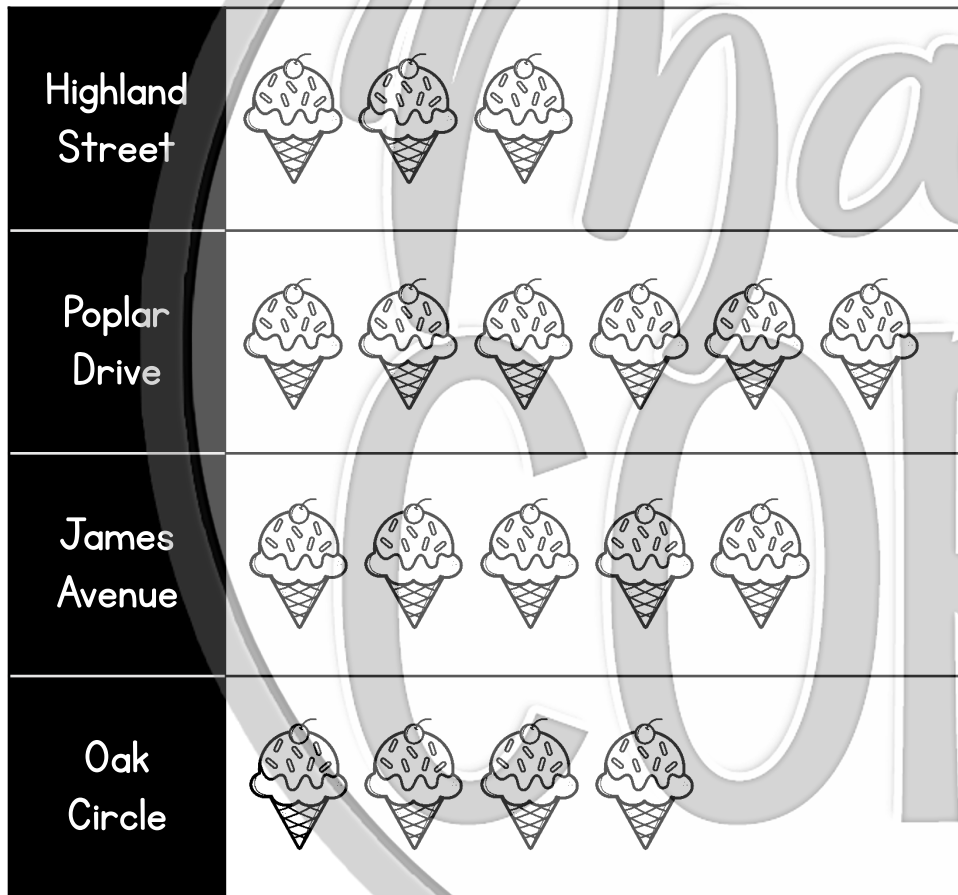
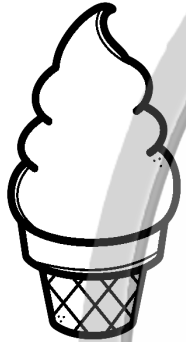🍦 = 1 customer

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 3 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?

CHALLENGE #1: ICE CREAM SIZES

Sometimes, customers are very hungry and want a large ice cream. Other customers aren't very hungry and only want a small treat. Cut out the ruler and use it to measure the height of each ice cream to the nearest inch. Fill in the table with the data.
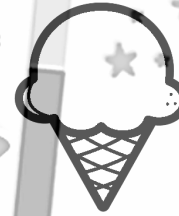
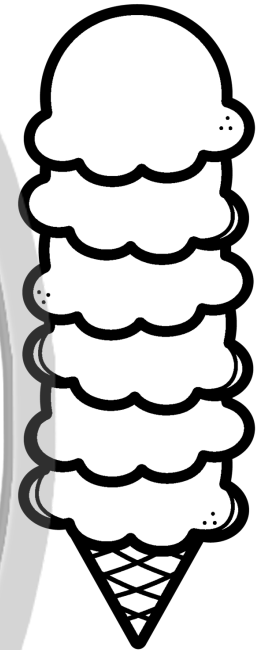Strawberry soft serve

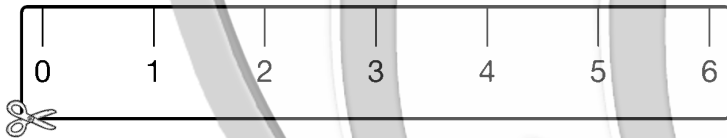Tropical fruit popsicle

Blueberry popsicle

Chocolate mini cone

Rainbow scoop stack

0   1   2   3   4   5   6

Ice Cream Type	Strawberry soft serve	Tropical fruit popsicle	Blueberry popsicle	Chocolate mini cone	Rainbow scoop stack
Height to the nearest inch					

CHALLENGE #2: ICE CREAM FLAVORS

Your ice cream truck is such a success that you decide to create your own line of ice cream flavors. Answer the two-step word problems.

1. You made 52 containers of chocolate marshmallow ice cream. You made 18 more containers of peanut butter ice cream than chocolate marshmallow, and 24 more containers of cherry pie ice cream than peanut butter. How many containers of cherry pie ice cream did you make?

2. To produce one batch of sugar cookie ice cream, you need 45 gallons of milk. You need 15 more gallons of cream than milk. How much milk and cream do you need altogether to make a batch of sugar cookie ice cream?

3. In one week, you sell 94 containers of your most popular flavor, Georgia peach. You sell 27 fewer containers of birthday cake ice cream than Georgia peach, and 16 more containers of strawberry frozen yogurt than birthday cake ice cream. How many containers of strawberry frozen yogurt do you sell in a week?

CHALLENGE #3: TOPPINGS GALORE

The menu board below shows the base price of each ice cream, plus how much extra each topping costs. Use the prices on the menu to answer the questions.

MENU

Ice cream.....$1 per scoop

In a cup .... No charge

In a cone ....80¢

Cherry............. 50¢ each

Cookie bits ....75¢

Sprinkles ....60¢

Fresh fruit.................. $1

Hot fudge ....20¢

Caramel.................... 30¢

Whipped cream .... 15¢

1. Yusef orders two scoops of ice cream in a cone. He asks for hot fudge, whipped cream, and sprinkles. How much does Yusef's ice cream cost?

2. Daniela wants three scoops of ice cream in a cup with fresh fruit, cookie bits, and a cherry. She has a coupon for one free topping. If she applies the coupon to the most expensive topping, how much does Daniela's ice cream cost?

3. Paolo has $5. He knows he wants two scoops of ice cream in a cone. What toppings can Paolo get so that he spends exactly $5?

4. What ice cream would you order? Calculate the cost of your ice cream.
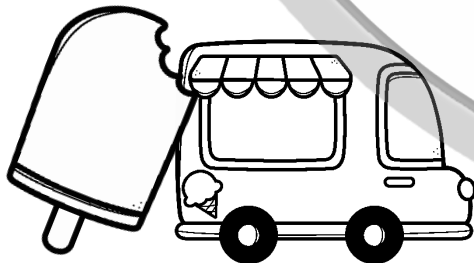
SELF-REFLECTION

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.   This was just right.   I found this very challenging.

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 practicing similar math problems.	I feel I need assistance to work on similar math problems

Terms of Use

How Can I Use This Resource?

Thank you for trusting MagiCore. Our mission is to create resources that support teachers and promote student success. Please note that this resource is licensed for use by a single teacher in a classroom setting. If you need to use this resource with more than one teacher and/or across multiple classrooms, additional licenses are available at a discount. You can purchase additional licenses by visiting your TPT "Purchases" page and then selecting "Download Additional Licenses" or by contacting me at julie@magicorelearning.com.

Good to Go
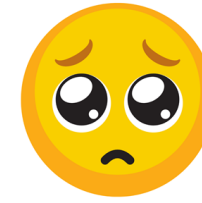
- Use this resource personally or with your own children
- Use this resource in your own classroom with your students.
- Provide this resource to your students to use at your instruction.
- Print and/or copy for use in your own classroom.
- Provide printed pages to a substitute teacher with the sole purpose of instructing your students.
- Share with your students via a secure document portal or electronic learning platform that requires individual user verification and limits access to only the students in your own classroom (e.g. Google Classroom)
- Review this resource with others with the sole purpose of recommending it to others for purchase, provided you share one of the links below:
  - https://magicorelearning.com/
  - https://www.teacherspayteachers.com/Store/Magicore

Not O.K.

- Share with others to use personally.
- Share with others to use in another classroom.
- Print or copy any page(s) and distribute them to other teachers or other classrooms.
- Publish or host online in a manner where any of the material is accessible to anyone who is not a student in your own classroom., including but not limited to personal, classroom, or district websites that are accessible to the general public.
- Use this resource commercially (e.g. Outschool).
- Publish, sell, or otherwise distribute this product to anyone in manner inconsistent with these terms of use.

Let's Connect!
www.magicorelearning.com

https://www.teacherspayteachers.com/Store/magicore

https://www.facebook.com/MagiCoreLearning

https://www.instagram.com/magicorelearning

https://www.pinterest.com/magicorelearning/_shop/

Julie@magicorelearning.com

Looking for more?

VIRTUAL FIELD TRIPS: Bundle
The Rainforest
Chocolate!

SUPERMARKET SPREE
Project Based Learning
2nd Grade
Print and Digital

MATH BUNDLE #1
Project Based Learning
2nd Grade
Print & Digital
Cupcakes Galore Project Based Learning
BUILD A ZOO Project Based Learning
Measure Twice, Cut Once Project Based Learning

MATH BUNDLE #3
Project Based Learning
2nd Grade
Print & Digital
Pizza Fractions Project Based Learning
Dinosaur Measurement Project Based Learning
SUPERMARKET SPREE

Membership Opportunity!

If you love these resources and want access to more, check out my membership opportunity with the Core Kingdom Club.

Join my MagiCore Club waitlist!

MagiCore Club opens its membership doors twice a year to offer teachers all the resources you love, with a membership discount. You can also find support through my custom learning plan.

Find out more https://magicorelearning.com/membership

LEARN MORE
at
magicorelearning.com/membership

CREDITS