

CHRISTMAS MATH PROJECT

OUTDOOR DECORATING

You have BIG plans this year for decorating! Lights, a wreath, a reindeer on the front lawn – you want it all! BUT, you have a budget to stick to. You have \$200 to spend on outdoor Christmas decorations.

You will use lights to decorate around all of your windows. You'll also wrap lights around the three pillars. Here are the measurements of your house:

- Window A has the same dimensions as Window B.
- Window C has the same dimensions as Window D.
- Windows E, F, and G have the same dimensions.
- For each pillar, you'll need AT LEAST three times the length of the pillar in lights (because the lights are being wrapped around).

Window	Perimeter in centimeters	Perimeter in meters
A		
B		
C		
D		
E		
F		
G		

FESTIVE CHRISTMAS SWEATERS

You and your friends are going to a Festive Christmas Sweater Party! You buy yourself a great Santa sweater! Now you need to order a different sweater for each of your 6 friends. Use the clues on the next page to figure out which one you'll need to order for each person.

	Jill	Marcus	Anna	Cody	Felix	Maddox
#1						
#2						
#3						
#4						
#5						
#6						

#1
\$22.50
Available in sizes S, M, L
Most colorful sweater available!

#4
\$20.95
Available in sizes S, M, L, XL

#2
\$25.65
Available in sizes S, L, XL

#5
\$32.50
Available only in size XL

SLEIGH RIDE MAP

You are planning the annual "Friends and Family Sleigh Ride!" First, you'll need to draw a map to plan your route. The map below represents the streets and avenues of your neighborhood. Use the directions on the next page to label your map.

Nine different math tasks are included.

Your students will...



CHRISTMAS BAKING

It's time to do your Christmas baking! You have decided to make 2 different kinds of cookies this year, but you're not sure which ones. There are three different recipes below. Draw a star beside the two that you will choose.

Soft and Chewy Sugar Cookies (makes 3 dozen)

1 cup butter, softened
1 cup granulated sugar
1 egg
2 1/2 tsp vanilla extract
2 1/2 cups all purpose flour
1/2 tsp baking soda
1/2 tsp baking powder
1/4 tsp salt

Baking Instructions:

Preheat oven to 350 degrees.
In a large bowl, cream butter and sugar together for about a minute until it's light and fluffy. Add the egg and vanilla.
Add in flour, baking soda, baking powder, and salt. Mix until just combined. Roll dough into 1 inch balls and roll in

Holiday Ginger Snap Cookies (makes 3 dozen)

2 cups all-purpose flour
1 tablespoon ground ginger
2 teaspoons baking soda
1 teaspoon ground cinnamon
1/2 teaspoon salt
3/4 cup shortening
1 cup white sugar
1 egg
1/4 cup dark molasses
1/3 cup cinnamon sugar

Peanut Butter Cookies (makes 2 dozen)

1 cup creamy peanut butter
1 cup softened butter
2 eggs
1 cup brown sugar
3/4 cup white sugar
2 and 1/2 cups all purpose flour
1 tsp vanilla
1 tsp baking soda
pinch salt

SHOPPING LIST

Suppose that you want to make a double batch of Soft and Chewy Sugar Cookies to take to school. Write down the amount of each ingredient that you will need.

Ingredient	Amount Needed for One Batch	Amount Needed for Two Batches

SHOPPING LIST

Which two kinds of cookies did you decide to make?

1. _____
2. _____

Now that you know which kinds of cookies you're making, it's time to shopping list for the ingredients. Write each ingredient and the amount need to buy.

shopping list

Figure out which Christmas sweater is the best option for each friend
Skills: graphing, logic


Plan a shopping list for Christmas baking
Skills: fractions


FESTIVE CHRISTMAS SWEATERS


Clues:


- Sweater #1 and Sweater #6 won't be worn by Jill or Anna.
- Felix doesn't want to spend any more than \$25.00 on his sweater.
- Cody wants a sweater with some writing on it.
- Jill needs a size medium.
- Maddox and Anna do not like cats, and won't wear a sweater with a cat on it!
- Maddox is the only one out of the friends that likes cats.
- Cody can spend up to \$30.00 on his sweater.
- Anna and Marcus don't want the snowman sweater.
- Marcus wants the most colorful sweater he can find.

Write each person's name beside his/her Christmas sweater.










What is the total cost of all 6 Christmas sweaters?


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Most colorful sweater available!



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#5
\$32.50
Available only in size XL

Plan Christmas dinner

Skills: area, perimeter, multiplication, money

CHRISTMAS DINNER

You are hosting Christmas dinner this year! It's really exciting because all of your aunts, uncles, and cousins are able to make it. You need to make a list of the people who will be coming:

christmas dinner guests

- Uncle Dale and Aunt Terry and their kids - Tyson, Taylor, and Tyler
- Uncle Ron and his kids - Jaxon, Clarke, and Hudson
- Grandma Lorraine
- Great Aunt Rose and Grandpa Frank
- Mom, Dad, and your siblings

Counting yourself, how many people will be coming to dinner?

You are trying to decide which room everyone will sit in for dinner. You'll need to know the area of each room. This means that you'll need to know the length and width of each room in meters.

KITCHEN
Length: 4 meters
Width: 7 meters
Area = _____ m²

DINING ROOM
Length: 7 meters
Width: 9 meters
Area = _____ m²

CHRISTMAS DINNER

Which room will work the best to host Christmas dinner? Why?

You have two tables that you'll use to seat everyone. The first table is 1 meter by 7 meters and the second table is 1 meter by 7 meters. Remember to leave at least 2 meters between the tables and the walls.

GROCERY LIST

It's time to plan the grocery list! The chart below shows the food that you will need. Fill in the chart with the number of people, and then calculate how much of each item you will need to buy.

1 kg = 1000 g

Item	Cost of Item	Amount Needed per Person	Total Number of People	Total Amount Needed	Total Cost
Potatoes, 5 kilogram bag	\$4.50	500 grams			
Ham, 3 kilograms	\$10.00	300 grams			
Turkey, 5 kilograms	\$23.25	300 grams			
	\$4.45	2 cups			
	\$9.95	1 cup			
	\$2.50	1			
	\$6.50	1			
	\$5.00	1 cup			
TOTAL COST					

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CHRISTMAS MOVIE MARATHON

Don't you just love the movies during the Christmas season? You've decided that you are going to have a Christmas movie marathon on December 23. You will watch 4 different Christmas movies that day. Here are the movies:

- The Polar Express - 95 minutes
- The Reindeer - 50 minutes
- The Grinch - 100 minutes

Write the length of each movie in hours and minutes:

Movie	Number of Minutes	Number of Hours and Minutes
	___ minutes	___ hours ___ minutes
	___ minutes	___ hours ___ minutes
	___ minutes	___ hours ___ minutes
	___ minutes	___ hours ___ minutes

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CHRISTMAS MOVIE MARATHON

Now it's time to plan your schedule for the day! You'll start the movie marathon at 10:00 am. You'll be watching all four movies, but you'll also need to plan time to have lunch, make popcorn, and of course have some breaks! Plan your schedule below:

What?	Start Time	End Time
Watch "Rudolph the Red-Nosed Reindeer"	10:00 am	
15 minute break		
Watch "A Christmas Story"		
30 minute lunch break		
Watch "Home Alone"		
15 minute break to make popcorn		
Watch "Miracle on 34 th Street"		

If you stay on schedule all day, what time will you finish?

THINK FAST! For how long will you watch Christmas movies for (in hours and minutes)?

My students always love a challenge and this resource was it! They had so much fun trying to work through the engaging tasks. This was also great for group and partner work!

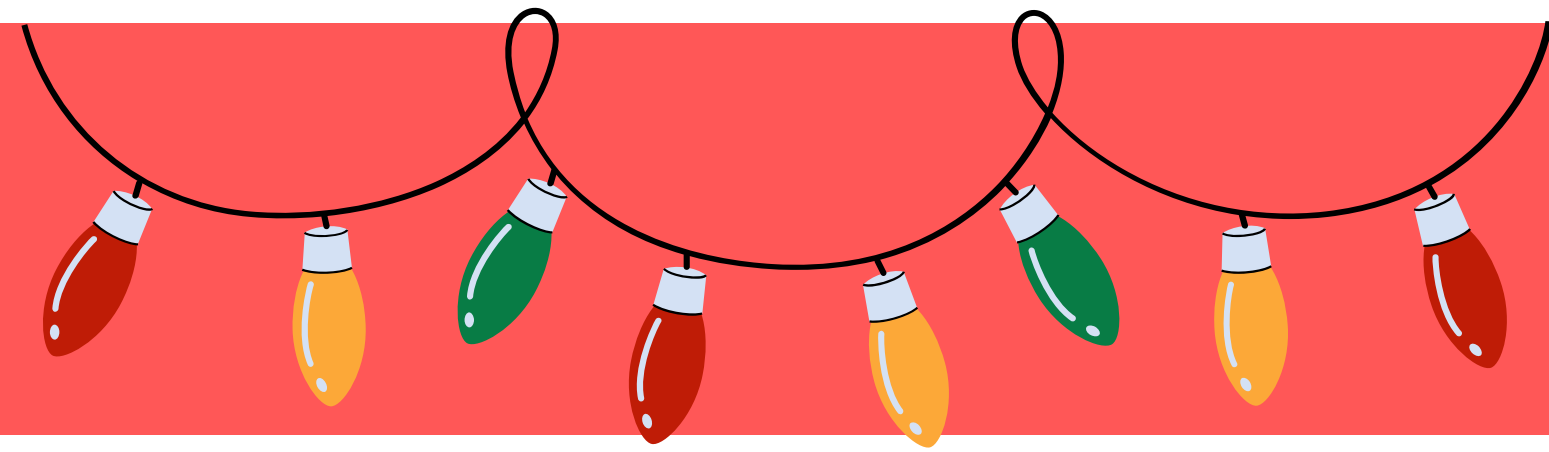
Plan a Christmas movie marathon
Skills: elapsed time, converting minutes to hours



And more!

“We love adding these Real Life Math Projects every once in a while for a break from our curriculum math. Kids really enjoyed this one for December!!”

Ideas for Use



Make a Christmas project booklet for each student. Have students use the tasks as early finisher activities throughout December.


Use the individual tasks as center activities throughout the month. Place one task at each center.

Use as activities for a substitute teacher.

Keep your students engaged and motivated during that chaotic last week before holidays by allowing them to work on these activities in partners.

Ready to **simplify**
 your Christmas
 math planning this
 year?





CHRISTMAS
MATH PROJECT

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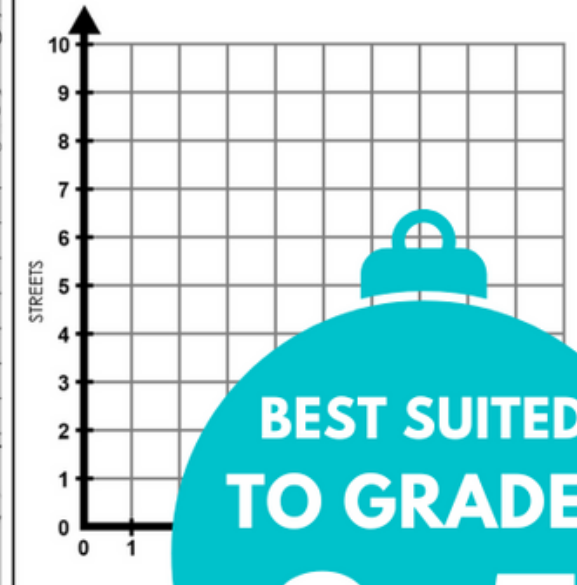


Window	Perimeter in centimeters	Perimeter in meters
A		
B		
C		
D		
E		
F		
G		

Pillar	Length of pillar	Three times the length (total needed)
1		
2		
3		

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Most colorful sweater available!




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Available in sizes S, L, XL



#3
\$30.75
Available in sizes S, M, L, XL



#6
\$29.80
Available in sizes S, M, L



**BEST SUITED
TO GRADES
3-5**

SHELLEY GRAY