



Give Your Teacher

SUPER POWERS

Grades 2 – 3 Edition



Math Educators, Assemble!

To empower teachers as they continue to adapt to rapidly evolving learning environments, share this bundle of rich math tasks to support resilient routines for math class like...

Super Math Talks

In class, at home, and anywhere in between, these visual conversation-starters are a great way to kick-off any math lesson.

Super Flexible Math Tasks

These agile lesson ideas are accessible to learners at any point in their numeracy development.

Craft truly epic math lessons by pairing these resources with the **adaptive activities** from the Zorbi's Math Adventure game and the **student performance insights** from your Teacher/Admin Dashboards.

Visit www.zorbitemath.com to learn more.



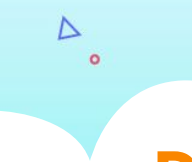
**Close
learning
gaps from
miles away**

**Lead epic
conversations**

**Uncover student
strategies**

**Intervene
with
pinpoint
accuracy**

www.zorbitsmath.com



Directions

- **Show students** the math talk visual.
 - **Give time** for every student to think of a solution.
 - **Prompt students** for their solutions and to explain their thinking. Use some of the Guiding Questions to probe for more detail.
 - **Display student responses** for the class. Include as much detail as possible.
 - **Encourage students** to look for multiple solutions and strategies. Use other students' approaches to help them self-correct as needed.
- 

Guiding Questions

- What do you notice?
 - How did you get started?
 - How did you get your answer?
 - Did anyone get the same answer a different way?
 - Does anyone have a different answer?
 - Why did you choose that strategy?
- 



Instructions: How Much Fruit Can I Buy?

Determine the quantity and selection of fruit that can be purchased for a given amount of money. Students explore and share a variety of strategies for spending a fixed amount of money on a number of items.

Guiding Questions

- What is the most fruit you can buy?
- How much money do you have left?
- Can you spend all of your money?
- Can you buy every type of fruit?
- Can you spend all your money and buy each type of fruit?
- If you only buy one of each type how much money would you have left?



How Much Fruit Can I Buy?



The **SUPER Market** has all sorts of nutritious fruit for superheroes.
What will you buy?



How Much Fruit Can I Buy?

Student Sample



Joel
5 @ \$2
 $2+2+2+2+2=10$
No change



Maria
1 of each
 $1+2+5=8$
\$2 left because
10 is 2 more
than 8.



Ali
10 @ \$1
uses all the
money since
\$10 is ten
\$1 bills.



How Much Fruit Can I Buy?





How Much Fruit Can I Buy?



How Much Fruit Can I Buy?





How Much Fruit Can I Buy?



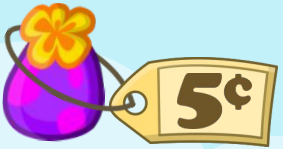


How Much Fruit Can I Buy?





How Much Fruit Can I Buy?



Instructions: How Many Fruit?

Determine how many fruits are shown. Prompt your students to explain how they “saw” the total. Students might count, group, or use a variety of multiplication strategies to find the number.

Guiding Questions

- How did you find the total number of fruit?
- How could you find the number of each different fruit?
- How could you rearrange the fruit to make it easier to count?
- What operations can be used to help count the fruit?
- Are there some strategies that are more effective than others?
- Can you find a way to always arrange the fruit into a rectangle? square?

Count the fruit

There's a storm coming that could ruin the crops. Never fear! **Wonder Weedly is here!** Help with the harvest by counting the fruit.



Count the fruit

Student Sample

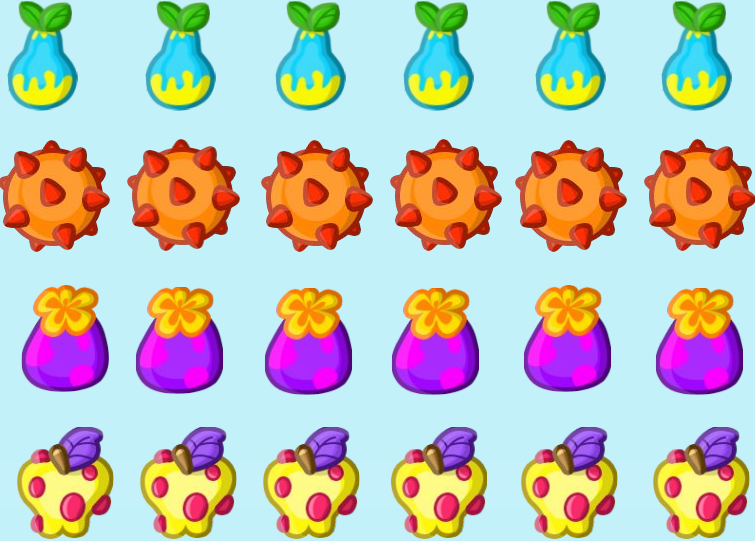
Joel
6 of each
 $6+6=12$
 $6+6=12 \rightarrow 24$



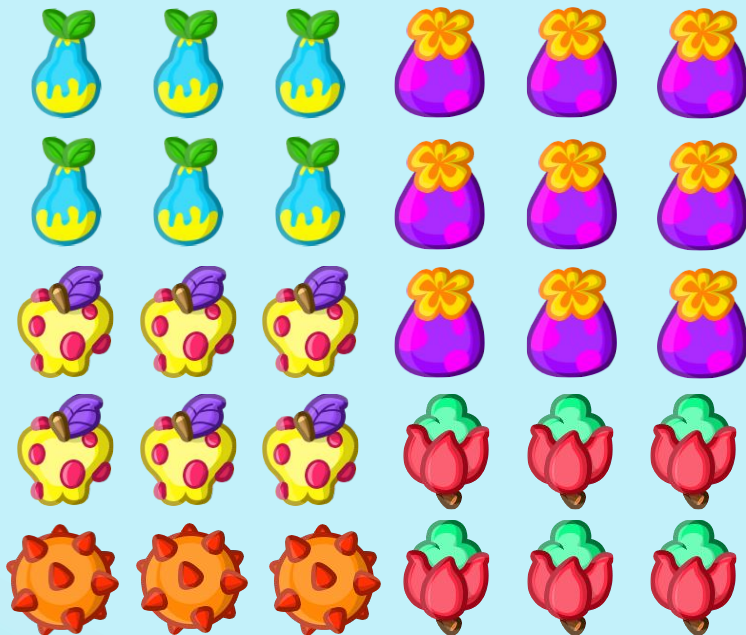
Maria
6 of each
4 groups of
6 is 24

Sophia
 $6 \times 4 = 24$

Count the fruit

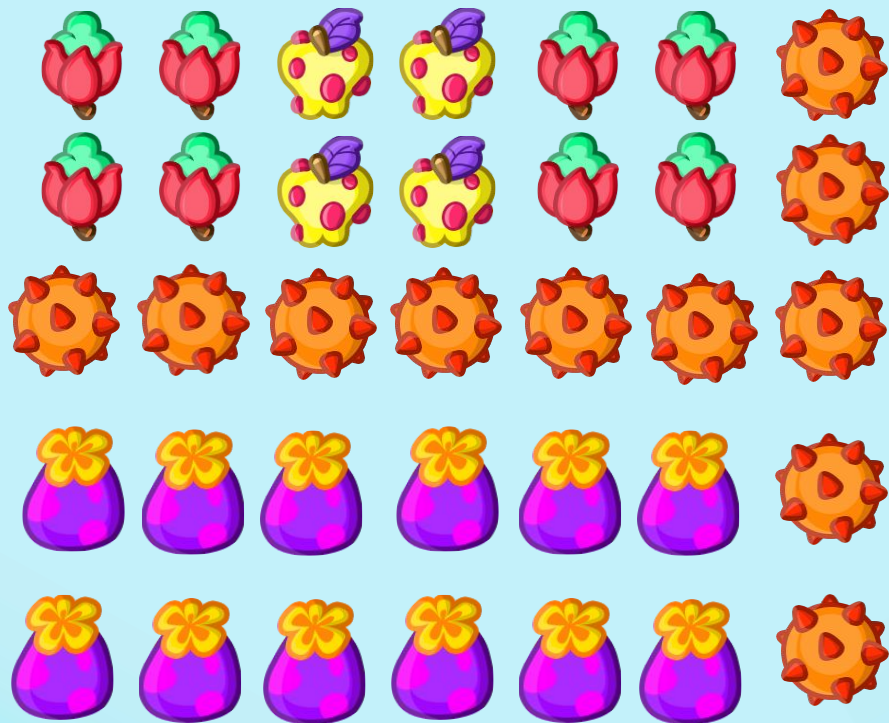


Count the fruit





Count the fruit

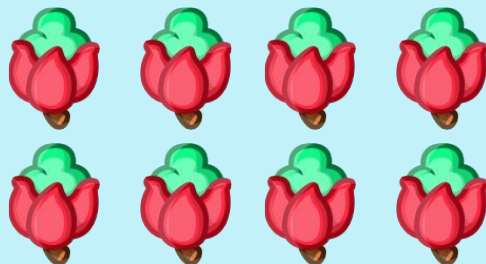


Count the fruit





Count the fruit



Count the fruit



SECOND & THIRD GRADE

**USE EVERYDAY MATERIALS
IN EXTRAORDINARY WAYS!**

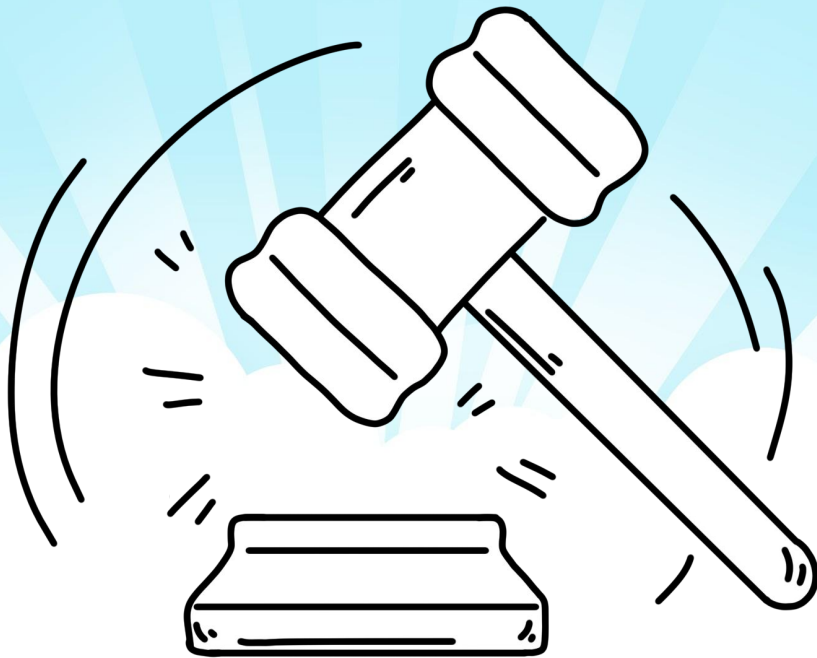
**CRAFT MASTERFUL
LESSONS IN A FLASH!**



**TACKLE MULTIPLE
MODELS AT ONCE!**

**CREATE PLAYFUL
AND COLLABORATIVE
LEARNING ENVIRONMENTS!**

SUPER POWERED AUCTION



Time for a super-sized sale! Upgrade your equipment by bidding on out-of-this-world auction items. The closest bid wins – but be careful not to bid too high!

SUPER POWERED AUCTION

OVERVIEW

Students use dice to construct a value while working with dollars and cents.

MATERIALS

- Dice
- Recording Sheet (included)
- Super Powered Auction Sheet (included)

DIRECTIONS

1. Select an item to auction and role a single dice to determine its target price. For example, on a roll of four, the target price becomes \$4.00.
2. Students take turns rolling a single dice and deciding to which unused denomination of money to assign the number. For example, if they roll a three, they can choose to have three \$1, three \$0.25, or three of any coin not already filled in.
3. When everyone has each denomination filled in, the student with the total value closest to the auction item's target price wins the round.
4. In the event of a tie, the student who has the greatest dice-roll total wins.
5. Repeat steps 1 - 4 for each of the auction items.

KEY QUESTIONS

1. How did you decide which numbers to put in which spaces?
2. What values were easy to figure out?
3. How could you make the largest value? Smallest?
4. How did you determine whose value was closest to the target price?

SUPPORTING LEARNERS

- Provide money manipulatives to assist with finding the total values.
- Give each auction item the same target price.

EXTENSIONS AND VARIATIONS

- Roll three dice to establish the auction price. For example a 6, 4 and 5 could mean a price of \$6.45.
- Have students create their own super auction items for for a full-class auction.

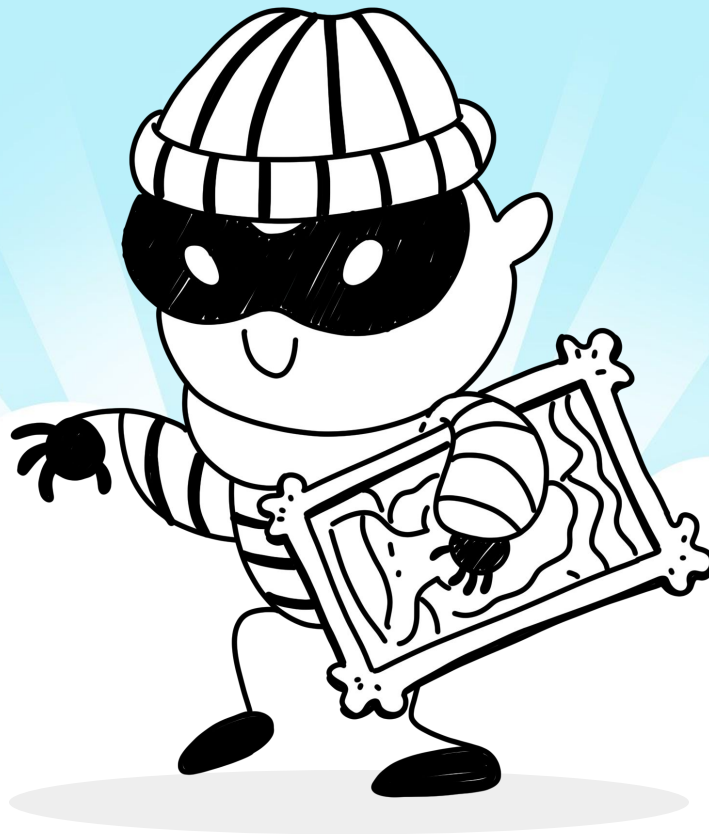
Item 	\$1 	\$0.25 	\$0.10 	\$0.05 	\$0.01
Cost	Total	Difference			

Item 	\$1 	\$0.25 	\$0.10 	\$0.05 	\$0.01
Cost	Total	Difference			

Item 	\$1 	\$0.25 	\$0.10 	\$0.05 	\$0.01
Cost	Total	Difference			

Item 	\$1 	\$0.25 	\$0.10 	\$0.05 	\$0.01
Cost	Total	Difference			

ART HEIST



The Pixel Art Gallery has been robbed!
Help create new masterpieces for the gallery.

PIXEL ART GALLERY

OVERVIEW

Students work with a collection of objects to determine ways it can be arranged.

MATERIALS

- Objects to count (ie. snap-cubes, counters, etc.)
- Pixel Art Canvas sheet (included)

DIRECTIONS

1. Provide each group with a collection of objects like cotton balls, buttons, etc. The collection should be no bigger than 100 objects.
2. Students work together to arrange the objects in ways that will help them determine how many there are.
3. Once they know the total number of objects, explore creative ways they can arrange and represent the number.
4. Use the Pixel Art Canvas sheets to draw three different arrangements of their objects.
5. Share their counting creations with the group or class and discuss how the images are the same and different.

KEY QUESTIONS

1. How are the images the same/different?
2. Which images have arrangements that are easy/difficult to count?
3. Are there numbers that work better for certain arrangements?
4. Are there arrangements that cannot be created for certain numbers?

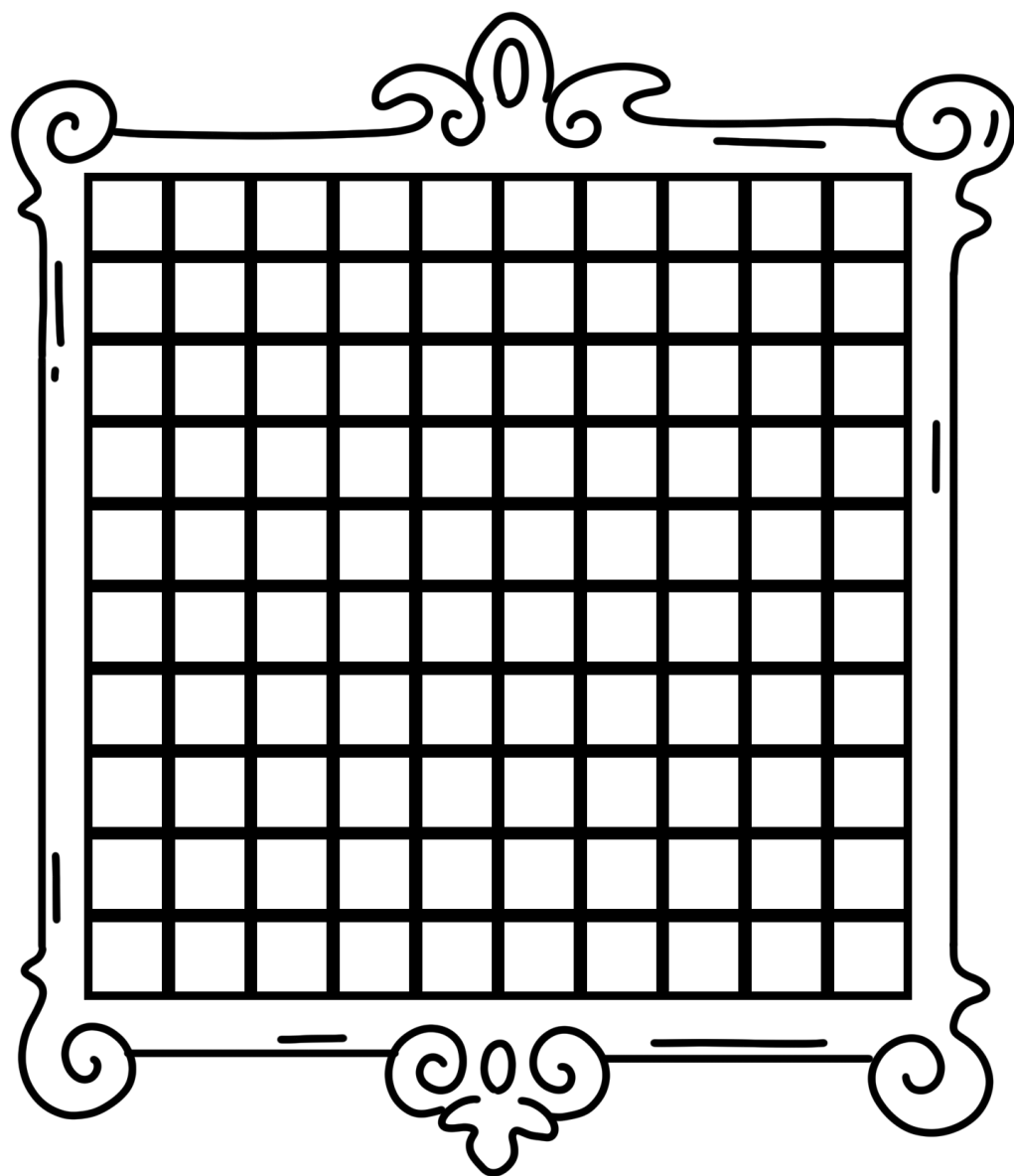
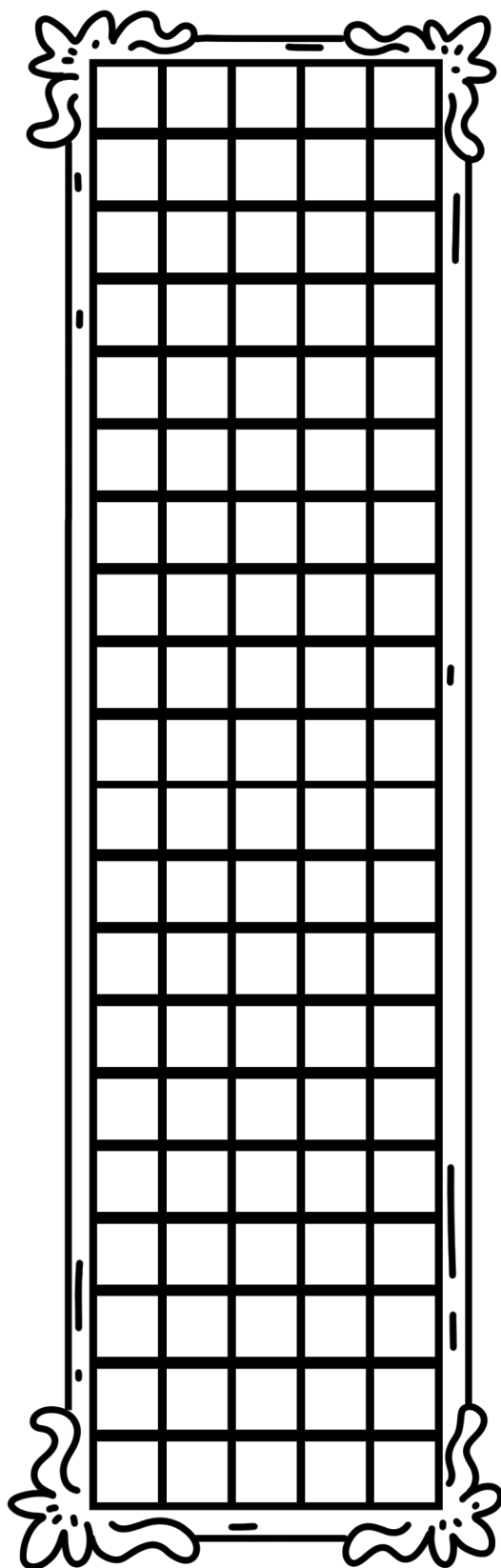
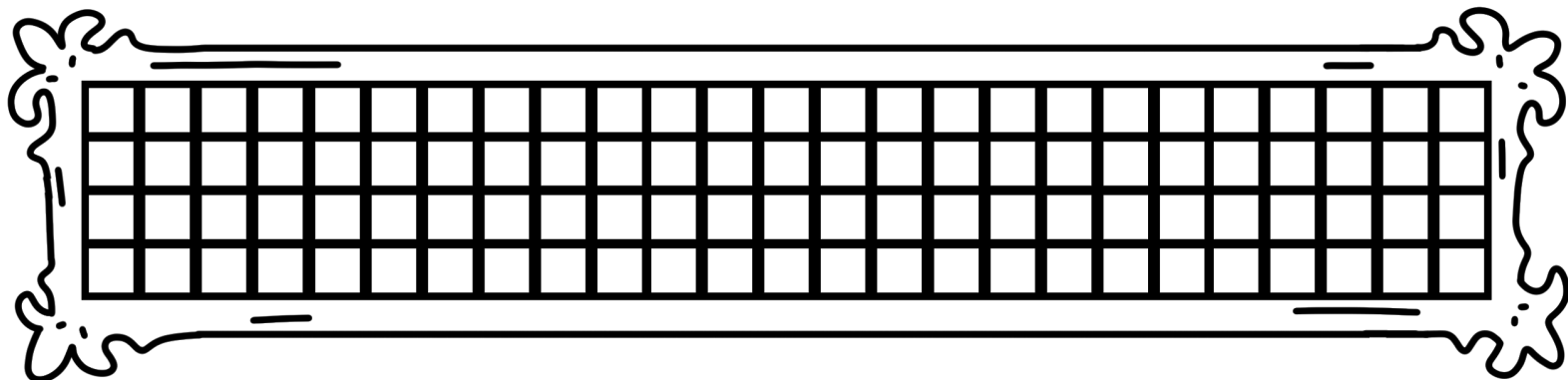
SUPPORTING LEARNERS

- Assign numbers of objects that can be arranged into more than one rectangle like 12, 18, 24, or 32.

EXTENSIONS AND VARIATIONS

- Determine which numbers can be arranged into squares.
- Find all numbers up to 30 that can not be arranged into rectangles.







WITH ZORBIT'S

Kids Can fly!



Share Your Math Experiences

We absolutely love it when teachers share their math talk experiences on [Twitter](#) or [Facebook](#). [Here's a stream of examples](#) teachers have shared using our resources in creative ways.

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Find out what else we have up our sleeves and what we can do for your K-3 classrooms and schools. Arrange a personalized look under the hood of our platform at <https://go.zorbitsmath.com/contact-us>