Give Your Teacher

SUPER POWERS

Grades K- 1 Edition

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 Many Blocks?

Determine how many blocks are shown. Prompt your students to explain how they "saw" the total. Students might count, group, or subitize the blocks to determine the total.

Guiding Questions

- How did you count the blocks?
- Can the total be expressed using two or more other numbers?
- Which blocks did you start with?
- If you could rearrange the blocks, would they be easier to count?
- How many more blocks to make ten?
- What is one more? One less?

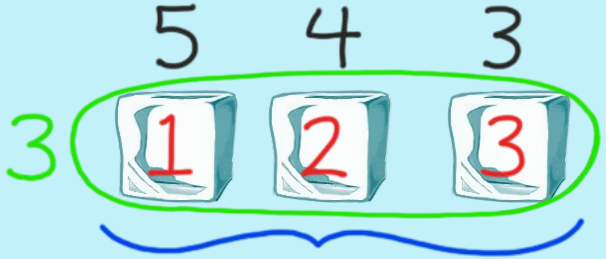
How Many Blocks?

Zorbit can't get across the Chilly Crevasse!
Help him hop across by counting the ice blocks.

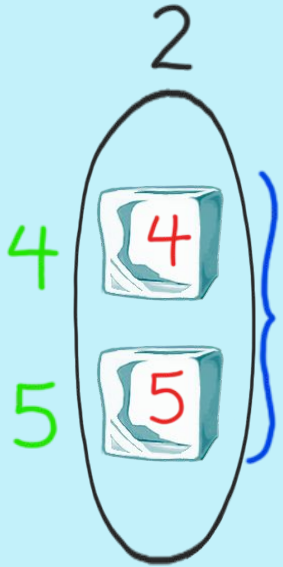
How Many Blocks?

Sample solutions

Maria
counted
1,2,3,4,5



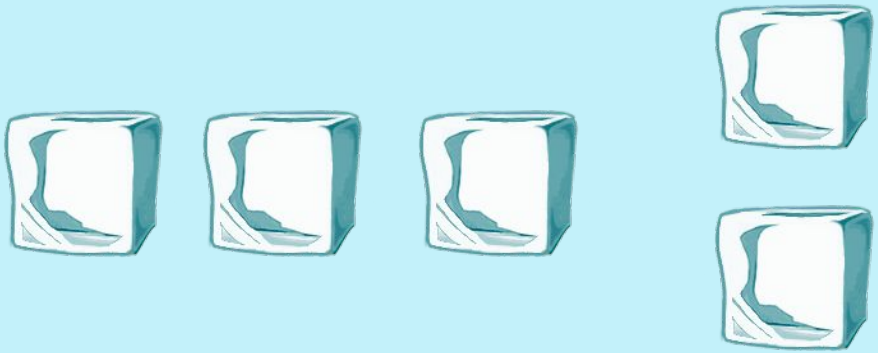
Joel
3+2=5



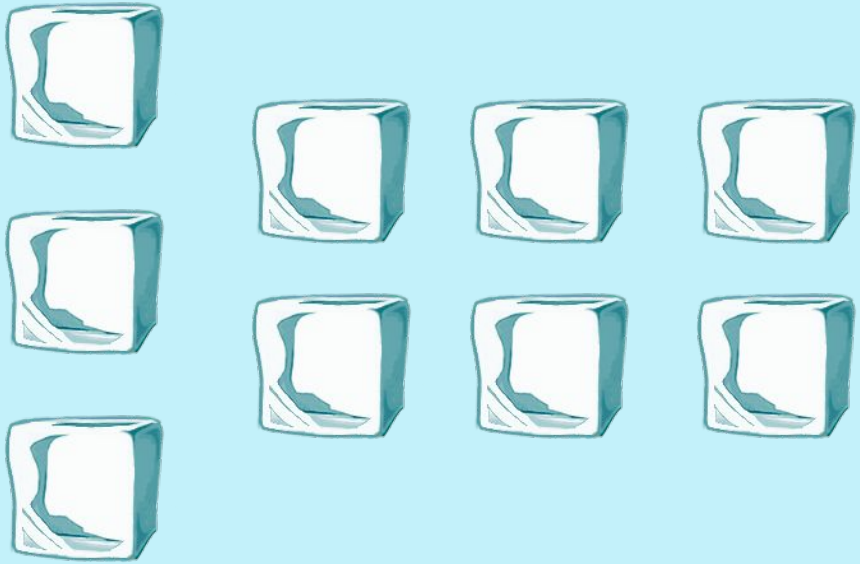
Ali
I see 3
and then
counted
4,5

Sophia
I saw 2
then counted
3,4,5

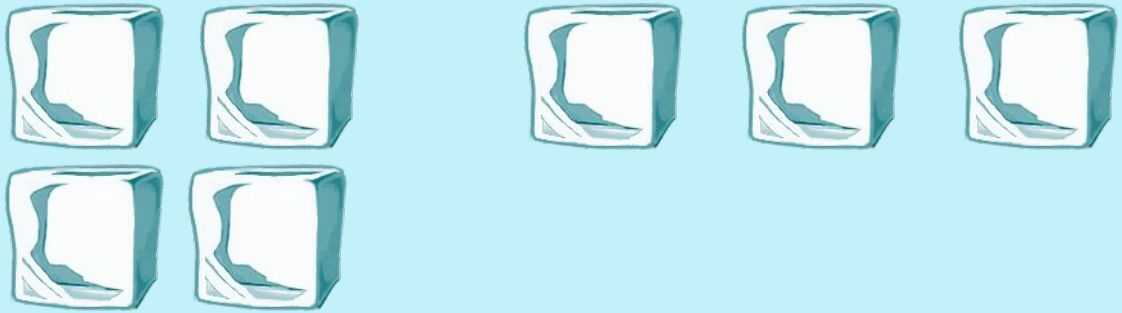
How Many Blocks?



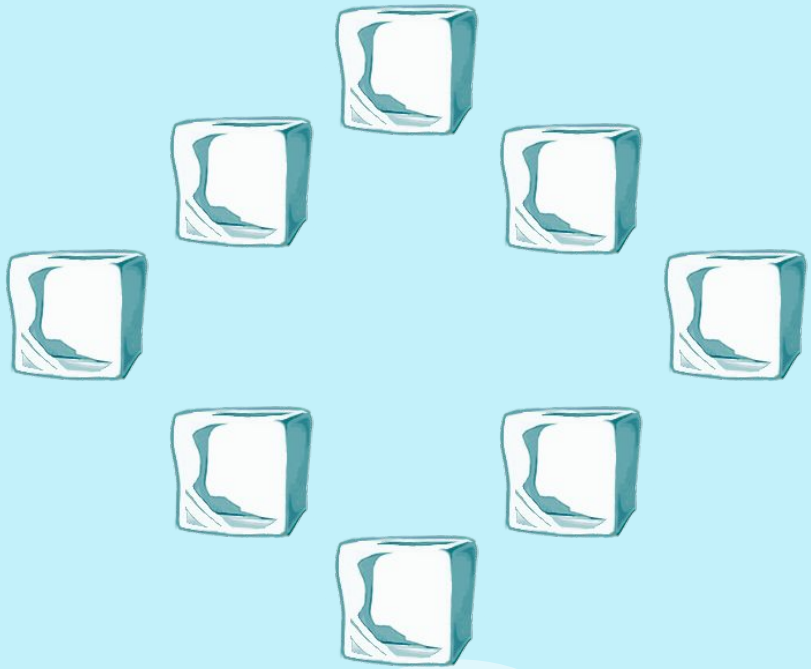
How Many Blocks?



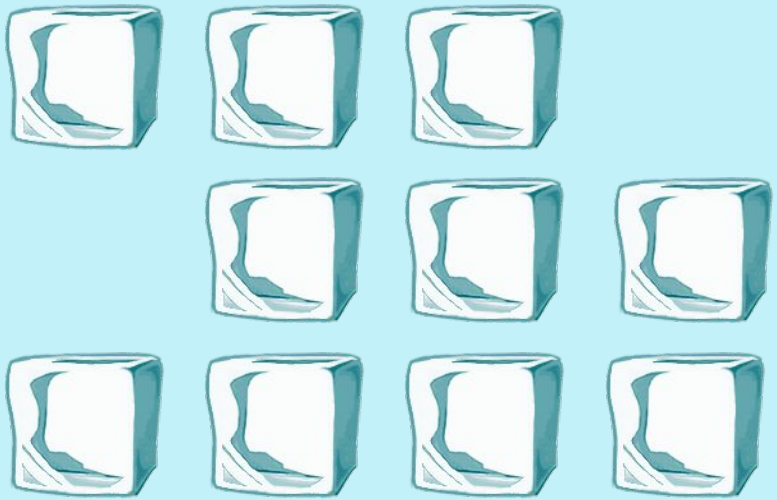
How Many Blocks?



How Many Blocks?



How Many Blocks?



Instructions: How Much Honey?

Determine the path through the honeycombs that collects the most or least amount of honey. Students will have the opportunity to share a variety of strategies for finding paths through the connected honeycombs.

Guiding Questions

- How did you find the total amount of honey?
- What was your strategy for getting the largest number?
- What was your strategy for getting the smallest number?
- Can you find a path that equals **12? 15? 20?**
- Are there multiple paths with the same answer?

How Much Honey?

Tobee, aka **Super Stinger,** is heading to the Honey Maze. Help him chart a course and collect some honey.

How Much Honey?

Student Sample

Maria

I wanted to finish at 1 so I went backwards.

1+2+3=6

6+1+2+1=10

Joel

I went to the smallest each time.

1+2+1+4+2

4+4+2

8+2=10

Sophia

I made a 9 path.

1+2+3+2+1

=6+3

=9

How Much Honey?

How Much Honey?

How Much Honey?

How Much Honey?

How Much Honey?

Kindergarten & First Grade

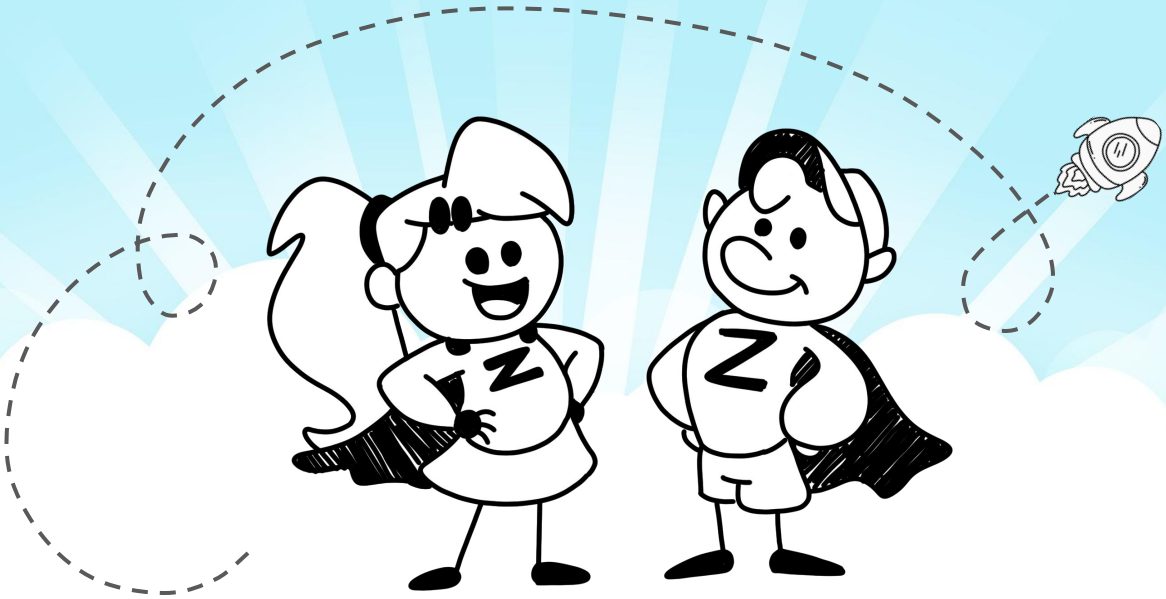
USE EVERYDAY MATERIALS IN EXTRAORDINARY WAYS!

CRAFT MASTERFUL LESSONS IN A FLASH!

TACKLE MULTIPLE MODELS AT ONCE!

CREATE PLAYFUL AND COLLABORATIVE LEARNING ENVIRONMENTS!

CHARGING
FUEL CELLS



Your rocket ship is out of energy!

Use your energy discs (two-colour counters) to fill your fuel tanks with different colour combinations.

Charging Fuel Cells

Overview

Students will use two-colour counters to compose and decompose numbers.

Materials

- Cups
- Two-Colour Counters
- Fuel Cell Recording Sheet
- Super Rocket Recording Sheet

Directions

1. Provide each pair of students with a target number of counters.
2. Each student chooses either red or yellow as their energy disc colour and takes the appropriate Super Rocket recording sheet.
3. Students use the cup to pour all of their counters out onto the table.
4. Students determine how many energy discs (counters) landed on yellow and red and record them on the Fuel Cell recording sheet.
5. Students collect the energy discs and repeat the activity four more times with their partner.
6. On the Super Rocket recording sheet, determine how many of their color occured in total.

Key Questions

1. Do you always get the same combination of red and yellow to make the number?
2. What do you notice about the number of red and yellow counters together?
3. Are there other combinations possible that you did not see?
4. How did you figure out which player got the most energy discs (counters) overall?

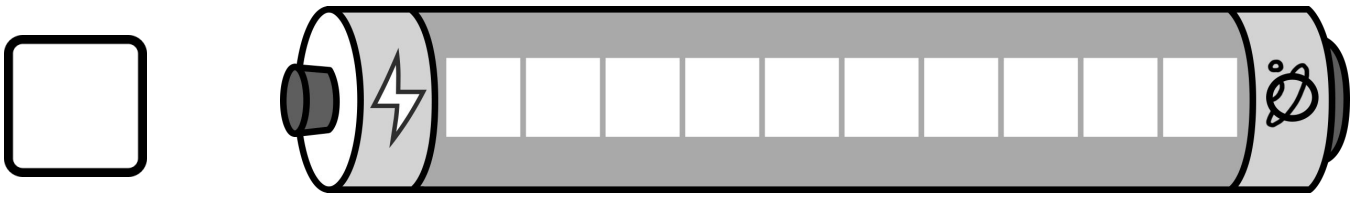
Supporting Learners

- Provide students with ten frames
- Use five counters or less
- Complete the activity after step five.

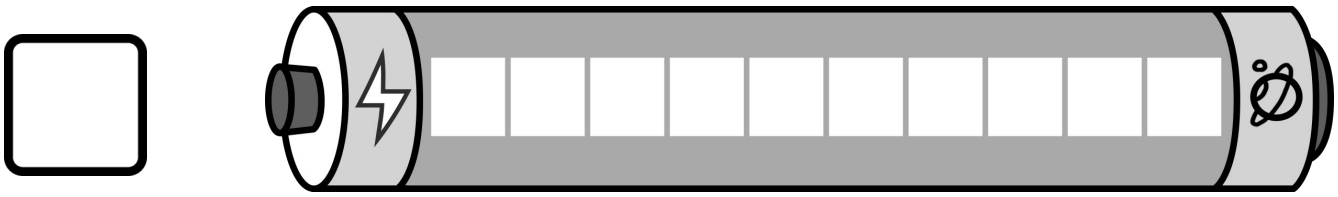
Extensions and Variations

- Use up to twenty counters
- Use a second type of counter to create the number from three parts
- Repeat the game until a player collects a total of fifty energy discs (counters) of their colour.

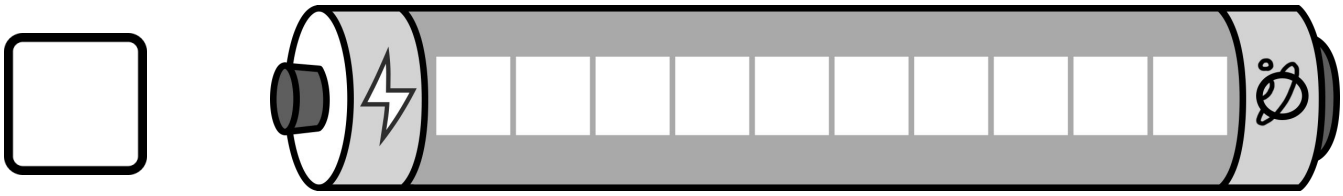
FUEL CELL RECORDING SHEET



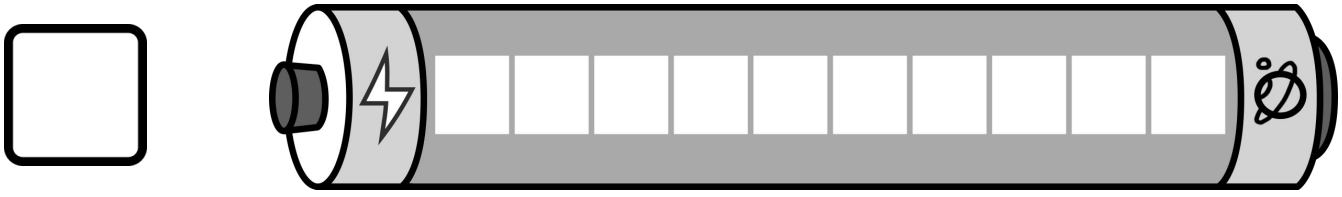
RED ☐ YELLOW ☐



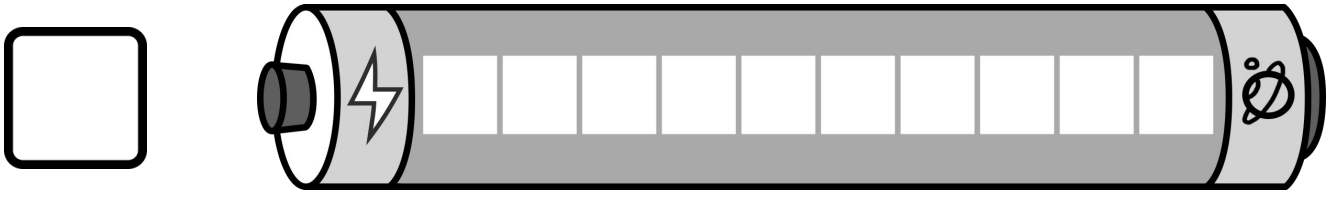
RED ☐ YELLOW ☐



RED ☐ YELLOW ☐



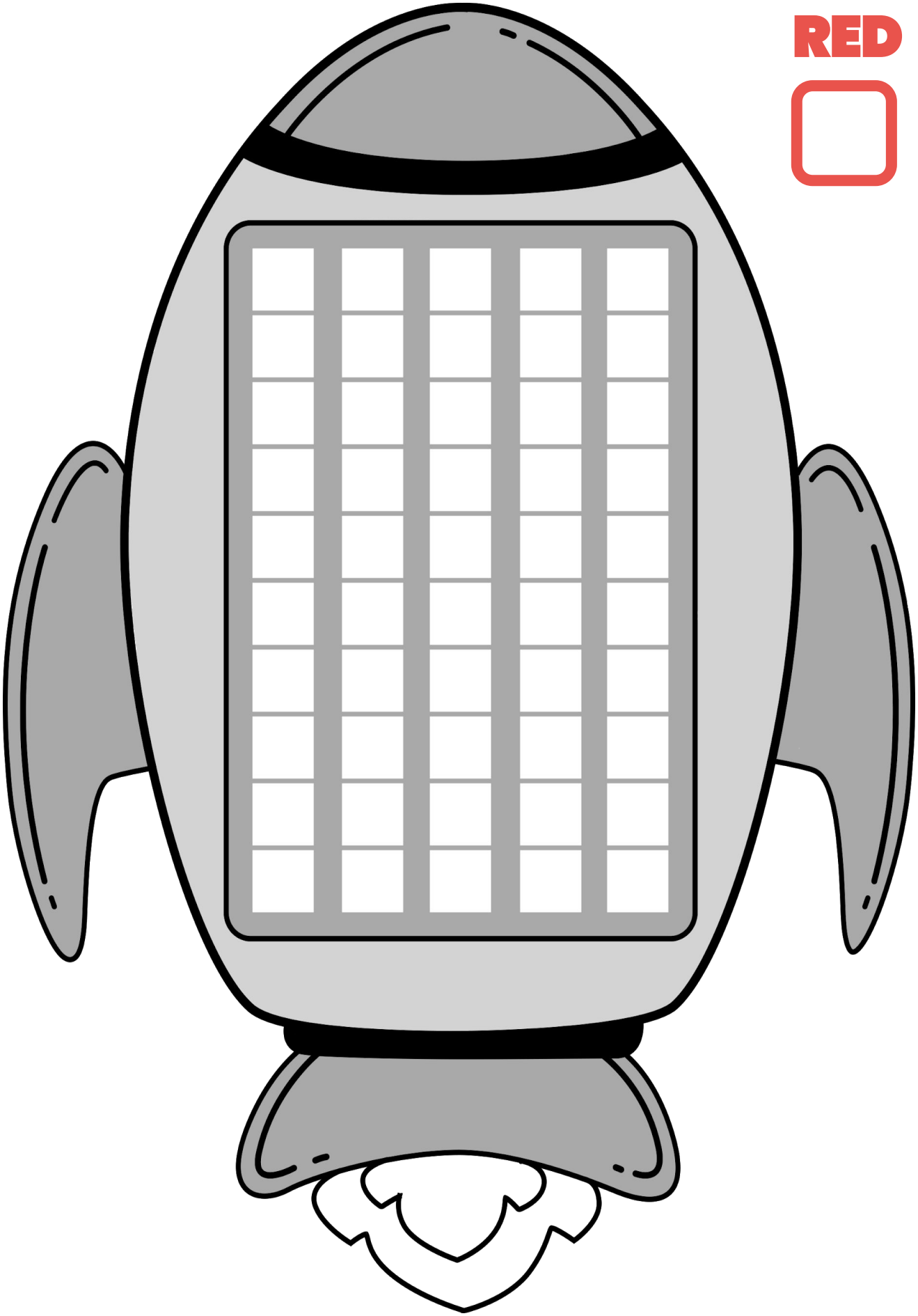
RED ☐ YELLOW ☐



RED ☐ YELLOW ☐

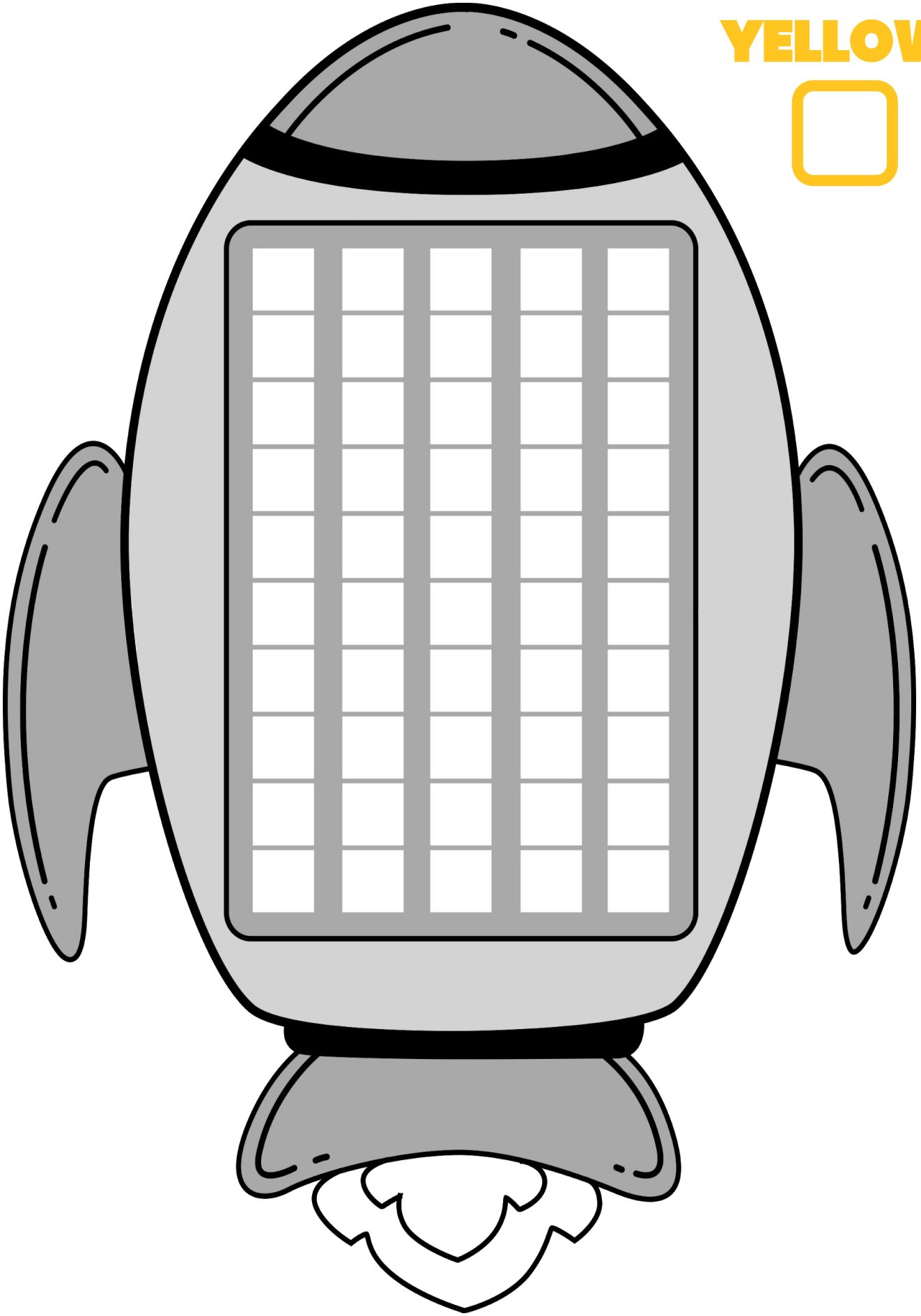
SUPER ROCKET RECORDING SHEET

RED



SUPER ROCKET RECORDING SHEET

YELLOW



SWIPING

ENERGY DISCS

Someone keeps swiping energy discs

(two-colour counters) from your rocket ship.

Determine how many are missing by counting

how many are left behind.

Swiping Energy Discs

Overview

Students will decompose numbers to determine the number of hidden counters.

Materials

- Energy Disc Recording Sheet (included)
- Counters
- RocketShip Counter Sheet (included)

Directions

1. Provide each pair of students with a target number of counters.
2. Assign roles to the students - one is the Swiper and one is the Spotter.
3. Places the counters on the rocketship at the start of each round and record the total on the Energy Disc recording sheet.
4. The Spotter closes their eyes while the Swiper steals any number of the counters from the rocketship.
5. The Spotter opens their eyes, counts the number of counters left behind, and records the number on the Energy Disc recording sheet.
6. The Spotter then uses the original total and the counters left to determine and record how many were stolen.
7. Students work together to determine if the answer is correct.
8. Alternate roles and complete five rounds.

Key Questions

1. How do you determine the number of missing counters?
2. Is it easier if the Swiper takes more counters or less? Why?
3. Could you play this game if you did not know how many counters you started with?
4. How would the game change if you arranged the counters into a pattern first, such as a ten- or five-frame?

Supporting Learners

- Provide students with ten frames.
- Provide students with a second set of objects to work with so they can mimic the number removed.

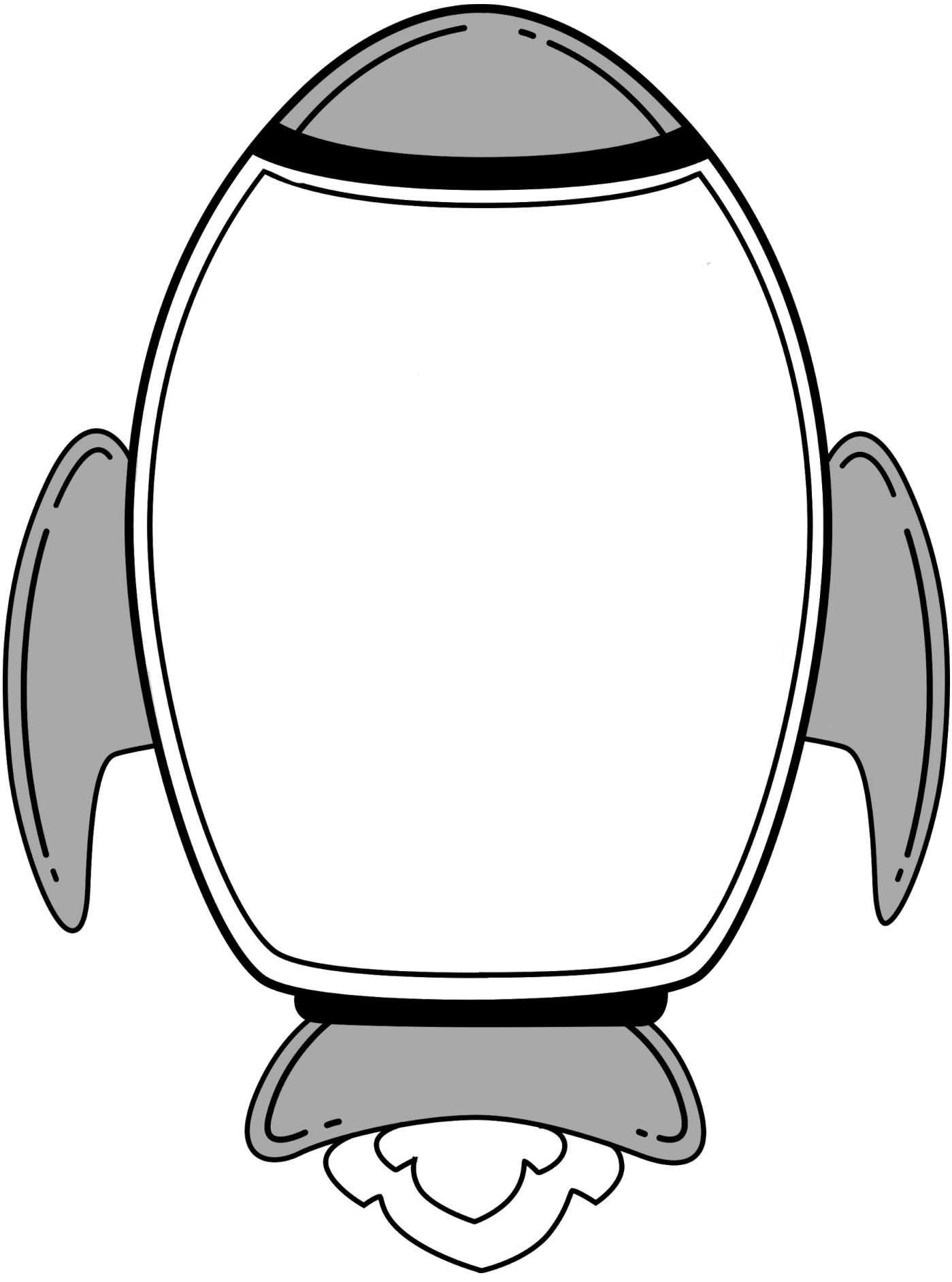
Extensions and Variations

- Use up to twenty counters.
- Play as a class and have the teacher take on the role of the Swiper.

Energy Disc Recording Sheet

round	 total	 left	 taken
1			
2			
3			
4			
5			

RocketShip Counter Sheet



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.

Want More Like This?

We're constantly cooking up new ideas for your math class. To avoid missing out on our resources, promotions, and product updates, subscribe to our newsletter at **https://go.zorbitsmath.com/email-subscribe-now**

Want To Learn More About Zorbit's?

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/lets-talk**