

# CAPACITY AND MASS



✓ GAMES  
✓ ACTIVITIES  
✓ WORKSHEETS

# 2 MINI LESSONS

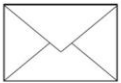
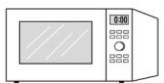

### Let's Learn: Finding Mass

Grams	Kilograms	Word Problems
1 g: paperclip	1 kg: dictionary	My dog has a mass of 7,000 grams. What is his mass in kilograms? $7000 \div 1000 = 7 \text{ kg}$
25 g: toothbrush	5 kg: bowling ball	I have 20 kg of watermelon and 1,000 g of carrots. Do I have more watermelon or carrots? $1000 = 1 \text{ kg}$ More watermelon
50 g: frog	10 kg: desk	
100 g: large key	100 kg: fridge	

**Did You Know?** 1 kg = 1000 grams  
1000 paperclips = 1 kg

- Mass is how much matter is in an object.
- Mass and weight are similar but not the same.
- A paperclip would not weigh anything in space but would still have the same mass!

Would you use g or kg to measure each object?

 g	 kg	 g
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### Let's Learn: Capacity and Volume

Liters	Milliliters	Word Problems
1 L: soda bottle	1 mL: raindrop	I have 8 liters of water. How many milliliters of water do I have? $8 \text{ L} \times 1000 = 8000 \text{ mL}$
5 L: water in a sink	5 mL: spoonful	I have 2 liters of water and 2,000 mL of soda. Do I have more water or soda? $2 \times 1000 = 2000 \text{ mL}$ they are the same.
50 L: small fish tank	20 mL: gulp of water	
100 L: garage (or you take to car)	500 mL: bowl of soup	

**Did You Know?**

- Volume is the amount of space an object takes up.
- Capacity is how much a container can hold.
- 1 L = 1000 mL

Would you use L or mL to find the volume of each container?

 mL	 L	 mL
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1. Capacity and Volume
2. Finding Mass



# 10 WORKSHEETS

**Which is More?**  
Name: Andy  
Circle which has a bigger volume in each question.

- 50 liters of water or 50 milliliters of water
- 75 milliliters of detergent or 25 liters of detergent
- 1 liter of tea or 1000 milliliters of tea
- 80 milliliters of hot chocolate or 80 liters of hot chocolate
- 6 liters of soap or 6 milliliters of soap

**Find the Mass**  
Name: Alex  
Estimate the mass of each object below to your best ability.

- A. 25g B. 250g C. 25kg D. 250kg
- A. 25g B. 50kg C. 5g D. 5kg
- A. 20g B. 10kg C. 1000kg D. 100g
- A. 1000g B. 10kg C. 10kg D. 100kg
- A. 2kg B. 2g C. 200g D. 200kg

**Could We Use mL or L?**  
Unit of measurement is appropriate for each object.

- mL or L
- mL or L
- mL or L

**Beaker Mathematics**  
Estimate the liquid volume of each container below to your best ability.  
Name: Debbie

- $350 - 250 = 100$  mL  
How much more is in the first?
- $300 + 150 = 450$  mL  
How much water is there combined?
- $500 - 350 = 150$  mL  
How many more mL does Beaker 2 contain?
- $450 + 650 = 1100$  mL  
How much water is there in all?
- $350 - 250 = 100$  mL  
How many more mL does Beaker 1 contain?

**Mass Word Problems**  
Solve each word problem. Don't forget the label for each answer!  
Name: Stacy

- Jennifer has 15g of salt. Jessica has 38g of salt. How much salt do they have altogether?  
 $15 + 38 = 53$  g
- May's cake weighs 500g. If she eats 224g, how many grams are left?  
 $500 - 224 = 276$  g
- Marlee opens 4 packages. There are 20 grams of sugar in each package. How many grams of sugar did she find in all?  
 $20 \times 4 = 80$  g
- Lana and Abigail each eat 485 grams of watermelon over the weekend. How much did they eat combined?  
 $485 + 485 = 970$  g
- Braden has 100g of sand. If it takes 10g to make a sandcastle, how many sandcastles can he make in all?  
 $100 \div 10 = 10$
- Jeffrey has 6 eggs. Each egg has a mass of 9g. What is the total mass of the eggs?  
 $6 \times 9 = 54$  g
- Amy splits 28 kilograms of candy between herself and 3 friends. How many kilograms does each kid get?  
 $28 \div 4 = 7$  kg
- Jamie's horse weighs 558 kg. After it eats dinner, it weighs 567 kg. How many kg did it eat?  
 $567 - 558 = 9$  kg
- Hale needs 1000 grams to make a kilogram. If he has 758 grams so far, how many more does he need to make a kilogram?  
 $1000 - 758 = 242$  g
- Sarah's loaf of bread weighs 700 grams. If she eats 221 grams, how much remains?  
 $700 - 221 = 479$  g

**Word Problems**  
Don't forget the label for each answer!

- Amy is trying to fill up her 42 L. If she fills it up 6 liters at a time, how many times will she need to do this to fill the pool completely?  
 $42 \div 6 = 7$  times
- Coby the dog drinks 463 mL out of his 800mL water bowl. How much water is still in the bowl?  
 $800 - 463 = 337$  mL
- Josephine puts 50mL of water on each plant in her yard. If she has 5 plants, how much water did she use?  
 $50 \times 5 = 250$  mL
- Mikey's water bottle can hold 600 mL of water. He noticed a leak in the bottle and now has 120 mL left. How much water leaked out?  
 $600 - 120 = 480$  mL
- Erika drinks 48mL of water after her work-out and 188 mL after her work-out.



# ERROR ANALYSIS

Students decide if each kid solved the problem correctly or incorrectly. They explain their thinking at the bottom.

4 PAGES

Directions: Read the problem below and look at the work the student did. Decide if the work is correct or not.

The stuffed animal weighs 100 grams. The man weighs 100 kilograms. Which weighs more?



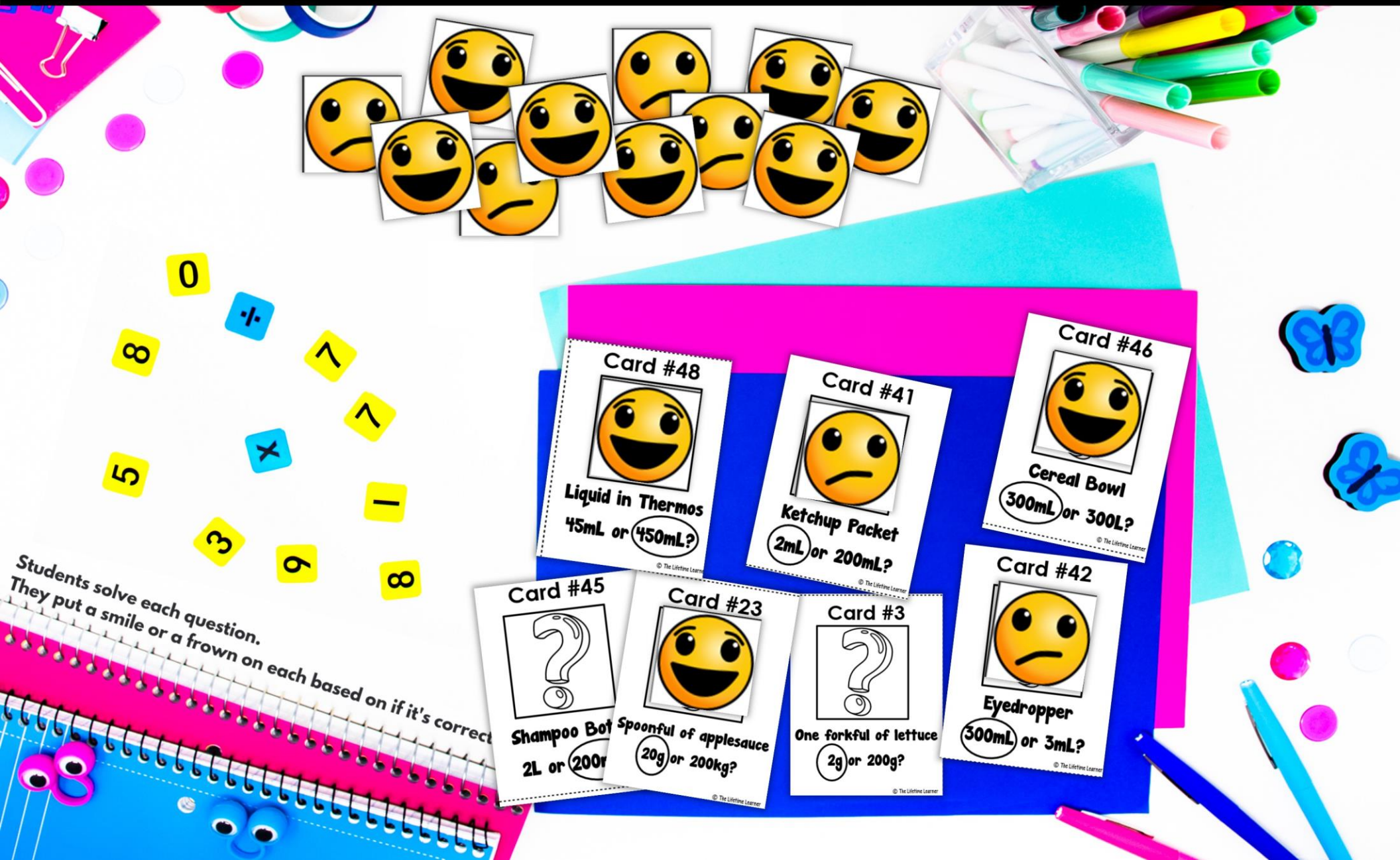
The student says:  
They both weigh the same because 100 is equal to 100!

Explain if they are right or wrong. Put a check or X on their work.

The student thought that grams and kilograms were the same unit of measurement when kilograms weigh more than grams. The correct answer would have been that the man weighs more than the stuffed animal.

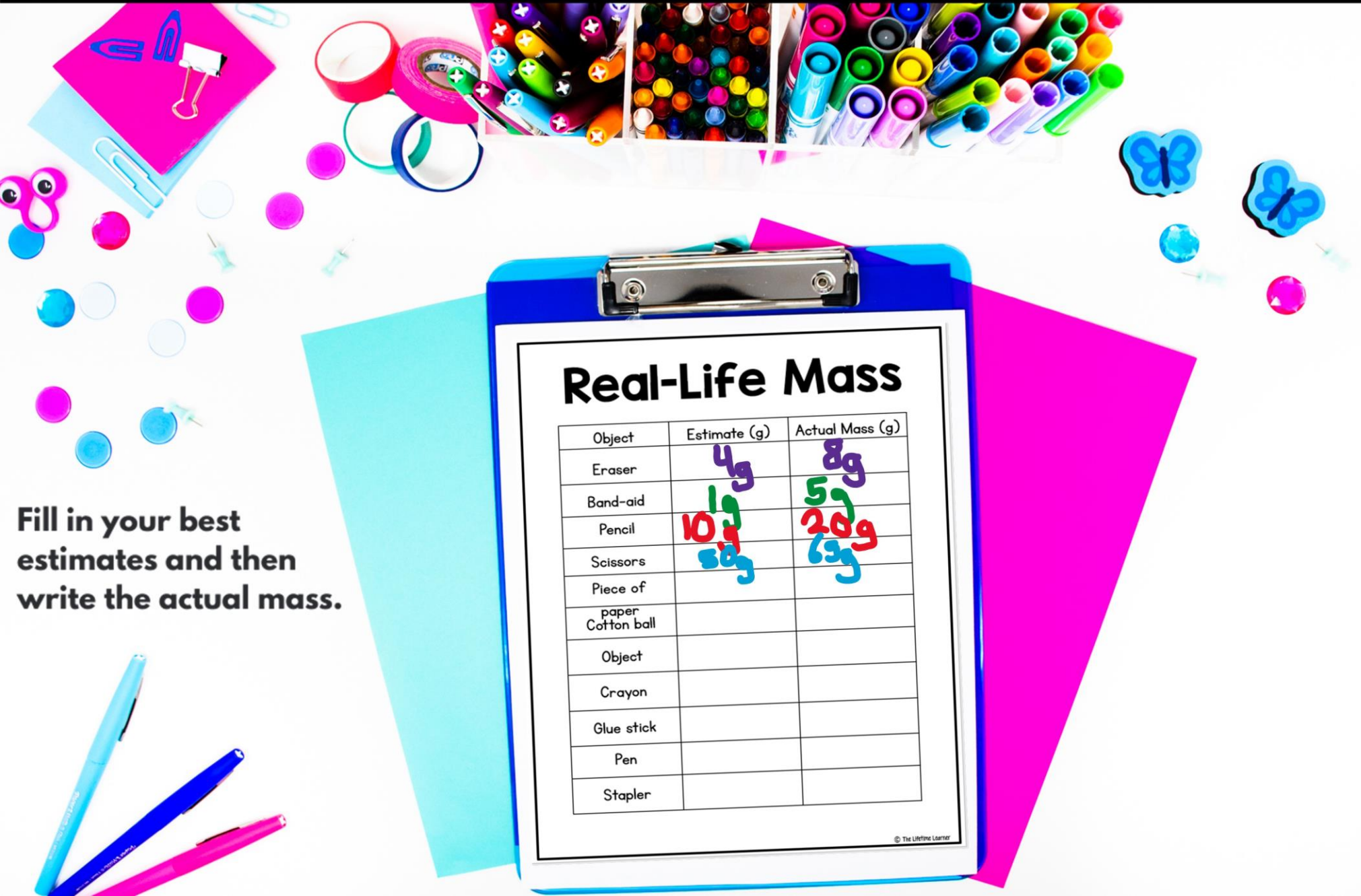
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# MATH SORT





# REAL-LIFE MASS

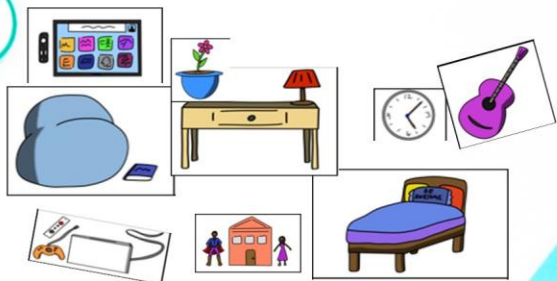


## Real-Life Mass

Object	Estimate (g)	Actual Mass (g)
Eraser	4g	8g
Band-aid	1g	5g
Pencil	10g	20g
Scissors	50g	63g
Piece of paper		
Cotton ball		
Object		
Crayon		
Glue stick		
Pen		
Stapler		

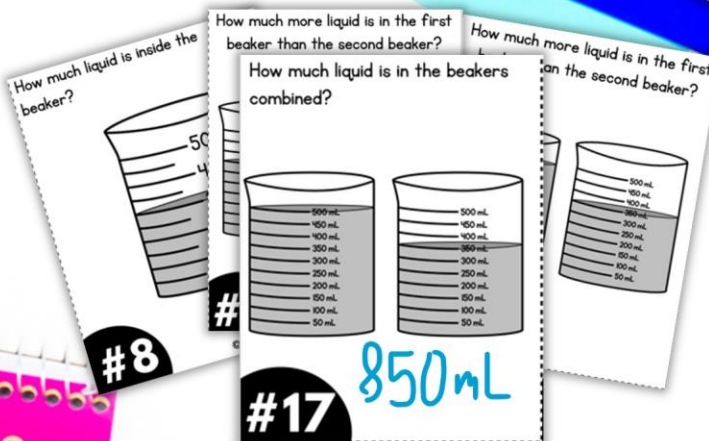
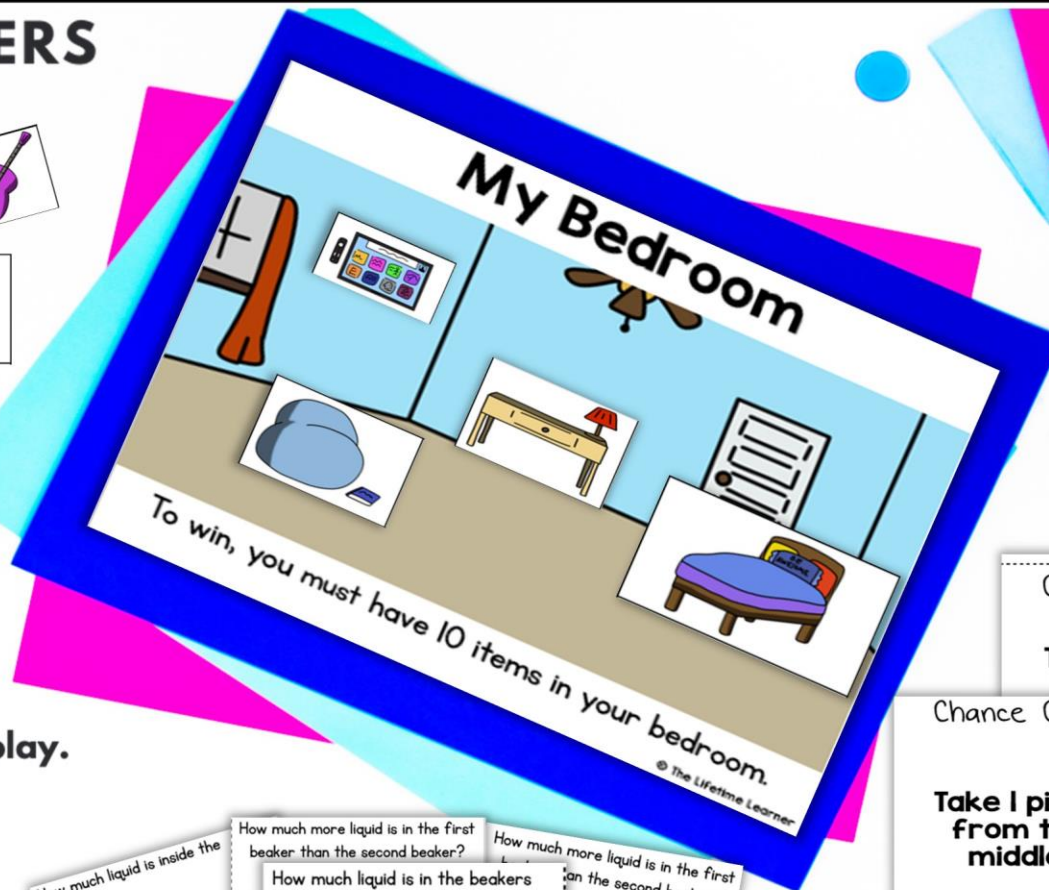
# GAME #1

FOR 2-4 PLAYERS



## HOW TO PLAY:

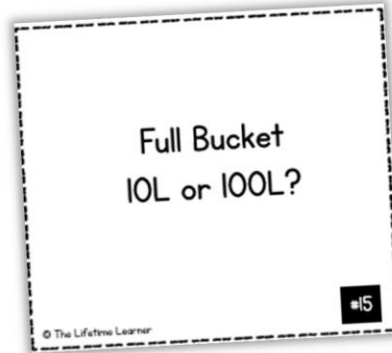
1. All players receive a game mat.
2. Students answer a question card.
3. If they are correct, they earn an item.
4. The first person to earn 10 items wins.
5. Chance cards included to spice up gameplay.





# GAME #2

the perfect game to play with the whole class



Click the bucket to see this game in action.

## HOW TO PLAY:

1. Students answer task cards.
2. If they get it right, they drop it in the bucket.
3. Students play for a set amount of time.
4. At the end of gameplay, the teacher draws task cards out of the bucket.
5. Any student whose task card gets pulled out gets a small prize.





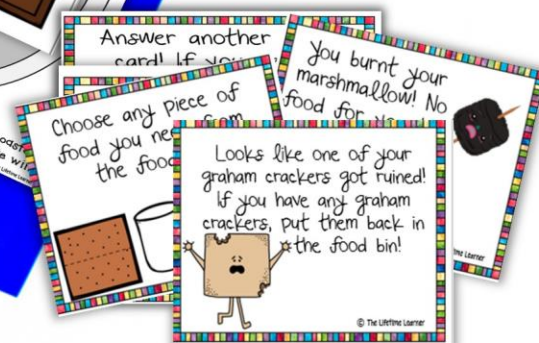
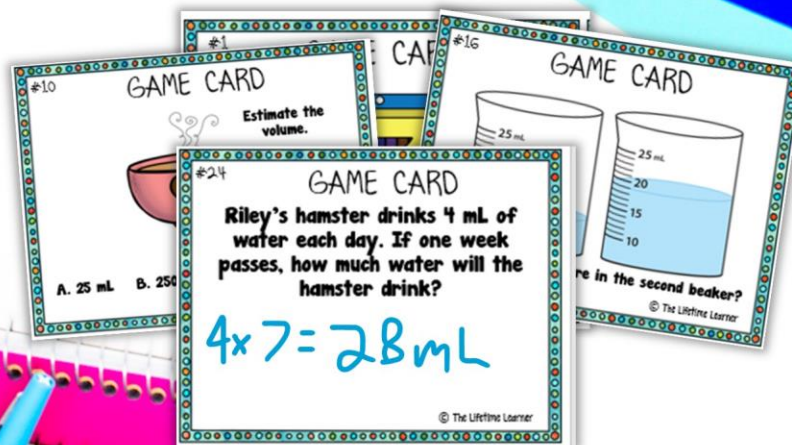
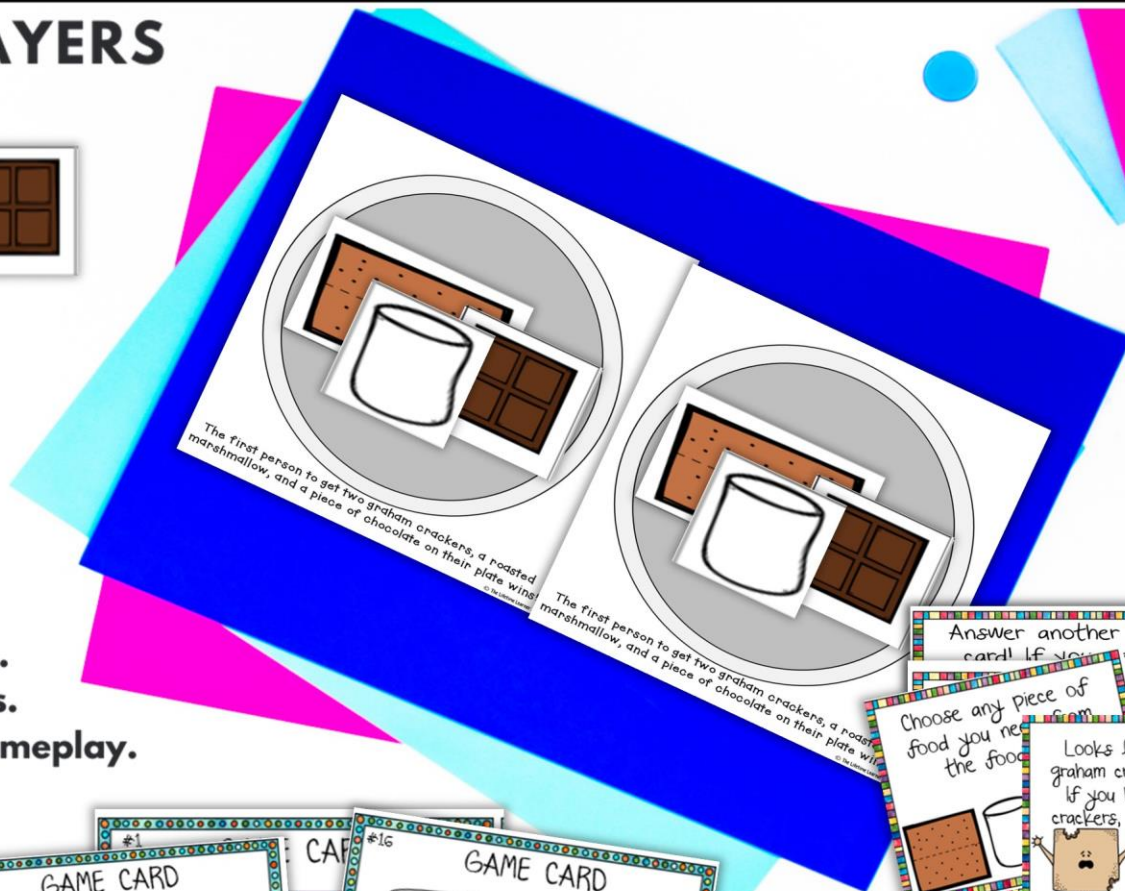
# GAME #3

FOR 2-4 PLAYERS



## HOW TO PLAY:

1. All players receive a game mat.
2. Students answer a question card.
3. If they are correct, they earn an item.
4. The first person to earn 10 items wins.
5. Chance cards included to spice up gameplay.



# BUY THE BUNDLE AND SAVE BIG!

## 3RD GRADE MATH BUNDLE

Name: Lindsay The Beach

Write the number of the matching word problem on each bucket to show which sandcastle goes with each word problem.

Sandcastle	Letter	Number
A	#6	
B	#5	
C	#2	
D	#4	
E	#1	
F	#3	

- There are 2 sharks. Each one has 5 teeth. How many teeth do the sharks have combined?  $2 \times 5 = 10$
- There are 54 fish in the water. They are split between 6 small pools equally. How many fish are in each pool of water?  $54 \div 6 = 9$
- There are 36 umbrellas for sale on the beach. 6 umbrellas are sold each hour. How many hours did it take to sell all of the umbrellas?  $36 \div 6 = 6$
- There are 3 fences facing the beach. There are four seagulls sitting on each one. How many seagulls are there total?  $3 \times 4 = 12$
- There are 12 surfers out in the water. They are chatting in groups of 4. How many groups are chatting?  $12 \div 4 = 3$
- There are 50 seals out in the ocean. They are sitting in groups of 10. How many groups of seals are there?  $50 \div 10 = 5$

My Castle



To win, you must have 10 items in your castle.

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7000+  
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ACTIVITIES

WORKSHEETS



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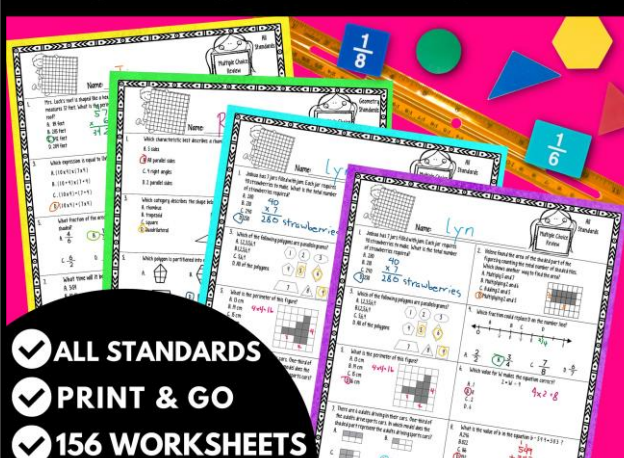
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