

5th Grade

ADD & SUBTRACT FRACTIONS

CANDY
FACTORY
ESCAPE
ROOM



PRINTABLE • GOOGLE • WEBSCAPE™

Escape the Candy Factory!

Students won't realize they are practicing Adding & Subtracting Fractions skills! They will be immersed in the storytelling and our original videos as they complete math challenges.



Dear ,

You've earned your way into my candy factory. I'm looking for the best of the best to take over my operation. Prove you can make candy better than the rest and I'll give you the keys to my factory.

You must make these 4 items to earn the keys:

- Marshmallows
- Cotton candy
- Fun-size chocolate
- Sprinkles

After each challenge, add the item to your candy shop to earn the keys to my factory.

Sincerely,
The Candy Man



©Julie Bochner

Learn more!



4 Mathematics Challenges

- Challenges focused on Adding & Subtracting Fractions with Unlike Denominators
- Each challenge takes about 20-30 minutes

Challenge #1

- Solve each fraction addition problem.
- Record answers on your brochure.
- Check your answers in the Candy Factory Decoder.
- Add the marshmallow to the candy shop.
- Scan the QR code in the corner of the next page.
- Move on to challenge #2.



- When making a batch of marshmallows, you mix $\frac{3}{4}$ of a cup of water with $\frac{1}{2}$ of a cup of corn syrup in a pot and bring it to a boil. How much liquid is in the pot?
 - $1\frac{1}{2}$ cups
 - $\frac{2}{4}$ of a cup
 - $1\frac{1}{4}$ cups
 - $\frac{4}{6}$ of a cup
- You allow the water and corn syrup mixture to boil for $3\frac{4}{5}$ minutes. Then, you add $1\frac{1}{2}$ cups of granulated sugar to the mixture and allow it to boil for $2\frac{1}{2}$ more minutes. How long has the mixture been boiling?
 - $6\frac{2}{5}$ minutes
 - $5\frac{6}{8}$ minutes
 - $5\frac{2}{6}$ minutes
 - $7\frac{17}{30}$ minutes
- You pour the marshmallow mixture into a silicone pan. After it has cooled, you cut the marshmallows into rectangles. Each rectangle is $1\frac{1}{5}$ inches long by $\frac{7}{8}$ of an inch wide. What is the perimeter of each marshmallow?
 - $1\frac{8}{11}$ inches
 - $2\frac{35}{28}$ inches

Challenge #2

- Solve each fraction subtraction problem.
- Record answers on your brochure.
- Check your answers in the Candy Factory Decoder.
- Add the cotton candy to the candy shop.
- Scan the QR code in the corner of the next page.
- Move on to challenge #3.



- You start off with $\frac{7}{8}$ of a cup of sugar. You pour $\frac{1}{4}$ of a cup of sugar into the cotton candy machine. How much sugar do you have left?
 - $1\frac{1}{8}$ cups
 - $\frac{5}{8}$ of a cup
 - $\frac{6}{4}$ cups
 - $\frac{6}{8}$ of a cup
- The cotton candy recipe calls for $\frac{2}{3}$ of a tablespoon of food coloring. You want to make purple cotton candy, so you add $\frac{1}{2}$ of a tablespoon of blue food coloring. How much red food coloring should you add to reach $\frac{2}{3}$ of a tablespoon of food coloring in total?
 - $\frac{2}{6}$ of a tablespoon
 - $\frac{1}{6}$ of a tablespoon
 - $\frac{1}{3}$ of a tablespoon
 - $\frac{1}{2}$ of a tablespoon
- It takes you $2\frac{3}{4}$ minutes to wrap the first cotton candy around the stick. By the fifth cotton candy, you're able to do it in $1\frac{3}{8}$ minutes! How much faster did you make the fifth cotton candy than the first cotton candy?
 - $1\frac{3}{4}$ minutes faster
 - $4\frac{1}{8}$ minutes faster
 - $1\frac{3}{8}$ minutes faster
 - $1\frac{1}{4}$ minutes faster



- The candy factory makes three sizes of marshmallows. Their heights are shown in the table below.

Marshmallow Size	Jumbo	Regular	Mini
Height (inches)	$1\frac{1}{2}$	$\frac{3}{4}$	$\frac{2}{3}$

What is the height of a tower made from one mini marshmallow and one jumbo marshmallow?

- $1\frac{4}{5}$ inches
 - $2\frac{1}{3}$ inches
 - $2\frac{1}{6}$ inches
 - $2\frac{1}{6}$ inches
- You decide to make a new size marshmallow: the mega marshmallow. This marshmallow is $2\frac{4}{5}$ inches taller than the jumbo marshmallow. How tall is the new mega marshmallow?
 - 4 inches
 - $4\frac{3}{5}$ inches



- The cotton candy is sold in packages with one, two, or three colors. The weights of the different packages are shown in the table below.

Number of Colors	1	2	3
Weight (ounces)	$6\frac{1}{2}$	$7\frac{2}{3}$	$8\frac{1}{4}$

How much less does a two-color package of cotton candy weigh than a three-color package?

- $\frac{5}{12}$ of an ounce
 - $\frac{7}{7}$ of an ounce
 - $\frac{7}{2}$ of an ounce
 - $\frac{1}{3}$ of an ounce
- Using the table from question #4, how much more do three one-color packages of cotton candy weigh than two two-color packages?
 - $4\frac{1}{6}$ ounces
 - $5\frac{1}{4}$ ounces
 - $3\frac{1}{6}$ ounces
 - $4\frac{1}{5}$ ounces



Scan the QR code or click [here](#) to view the video.



Learn more!



4 Mathematics Challenges

- Themed videos integrated throughout the Escape Room to keep kids engaged.
- Students work in groups, partners, or independently.

Challenge #3

- Solve each error analysis problem.
- Record answers on your brochure.
- Check your answers in the Candy Factory Decoder.
- Add the chocolate bar to the candy shop.
- Scan the QR code in the corner of the next page.
- Move on to challenge #4!



- Hannah ate $\frac{1}{4}$ of a chocolate bar yesterday and $\frac{1}{2}$ of the chocolate bar today. She says she ate $\frac{2}{6}$ of

- A fun-size chocolate bar is $\frac{1}{6}$ of the length of size chocolate bar. Asante does the math below determine what fraction of a full-size bar equals fun-size bars. What did Asante do wrong?

$$\frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{3}{6} = \frac{2}{3}$$

- Asante is correct.
- Asante forgot to add the denominators.
- Asante did not simplify his answer correctly.

Challenge #4

- Solve each word problem.
- Record answers on your brochure.
- Check your answers in the Candy Factory Decoder.
- Add the sprinkles to the candy shop.
- Scan the QR code in the corner of the next page.
- Earn the keys to the factory!



- In a batch of primary color sprinkles, $\frac{1}{3}$ of the sprinkles are red and $\frac{2}{5}$ of the sprinkles are blue. The remaining sprinkles are yellow. What fraction of the sprinkles are yellow?

- $\frac{5}{8}$
- $\frac{1}{6}$
- $\frac{4}{6}$

- There are three candy factory workers who run

- It takes $2\frac{3}{4}$ gallons of cocoa butter and $1\frac{2}{3}$ gallons of sugar to make the chocolate base for one batch of fun-size bars. Your workers calculated how much more cocoa butter than sugar is needed for one batch. What did your workers do wrong?

$$2\frac{3}{4} - 1\frac{2}{3} = \frac{11}{4} - \frac{5}{3} = \frac{30}{12} - \frac{20}{12} = \frac{10}{12} = \frac{5}{6}$$

- They are correct.
- They made a mistake when converting from mixed numbers into improper fractions.
- They made a mistake when creating fractions with common denominators.
- They made a mistake when subtracting.

What should the answer to the equation in question

- To make chocolate peanut butter fun-size bars, first the workers mix $64\frac{7}{8}$ ounces of chocolate with $22\frac{5}{6}$ ounces of peanut butter. They remove $\frac{1}{2}$ of an ounce from the mixture for a quality assurance test. Then, they pour $15\frac{3}{4}$ ounces out to make the first batch of candy bars. They calculate that there are 72 ounces of the chocolate peanut butter mixture remaining. Is this correct?

- They are correct.
- No, there is not enough information to answer the question.
- No, the answer should be $71\frac{1}{24}$.
- No, the answer should be $68\frac{9}{24}$.

- The sprinkles are packaged in shaker jars to be sold. $\frac{6}{10}$ of the weight of each jar are the sprinkles themselves. This is twice as much as the weight of the shaker jar. The metal top on the jar is $\frac{1}{5}$ of the weight, and the rest of the weight is the label on the jar. How many times more does the metal top weigh than the label?

- three times as much
- four times as much
- twice as much
- they weigh the same

- Each sprinkle is made up of a mixture of cornstarch, sugar, wax, and food coloring. $\frac{3}{10}$ of each sprinkle is cornstarch. $\frac{2}{8}$ is wax. The rest is sugar and food coloring. There is twice as much sugar as food coloring. What fraction of each sprinkle is sugar?

- $\frac{3}{20}$
- $\frac{3}{10}$
- $\frac{8}{10}$
- $\frac{13}{8}$

- The table below shows what fraction of the sprinkles produced by the factory are certain shapes. Fill in the missing information so that the sum of all the fractions in the table is 1.

Shape	Oblong	Round	Hearts	Stars
Fraction of Total	$\frac{2}{5}$		$\frac{1}{10}$	$\frac{1}{7}$

What fraction of the sprinkles are round or oblong?

- $\frac{53}{70}$
- $\frac{3}{5}$
- $\frac{7}{11}$
- $\frac{25}{70}$

Scan the QR code or click [here](#) to view the video.



Learn more!



Challenge #1

1. Solve each fraction addition problem.
2. Record answers on your brochure.
3. Check your answers in the Candy Factory Decoder.
4. Add the marshmallow to the candy shop.
5. Scan the QR code in the corner of the next page.
6. Move on to challenge #2.



2. You allow $3\frac{4}{5}$ minutes for each marshmallow to be cooked.

1. When making a batch of marshmallows, you mix $\frac{3}{4}$ of a cup of water with $\frac{1}{2}$ of a cup of corn syrup in a pot and bring it to a boil. How much liquid is in the pot?

- a. $1\frac{1}{2}$ cups
- b. $\frac{2}{4}$ of a cup
- c. $1\frac{1}{4}$ cups
- d. $\frac{4}{6}$ of a cup

1.

Fraction Addition Problems

When making a batch of marshmallows, you mix $\frac{3}{4}$ of a cup of water with $\frac{1}{2}$ of a cup of corn syrup in a pot and bring it to a boil. How much liquid is in the pot?

- a. $1\frac{1}{2}$ cups
- b. $\frac{2}{4}$ of a cup
- c. $1\frac{1}{4}$ cups

Show Your Work

1.

When making a batch of marshmallows, you mix $\frac{3}{4}$ of a cup of water with $\frac{1}{2}$ of a cup of corn syrup in a pot and bring it to a boil. How much liquid is in the pot?

$1\frac{1}{2}$ cups

$\frac{2}{4}$ of a cup

$1\frac{1}{4}$ cups

$\frac{4}{6}$ of a cup




©Julia B. B.

3 Versions

- Print
- Google Slides
- Webscape™ (Our most popular experience)

Learn more!



	PDF 	Google Slides 	Webscape™ 
Format Type	Printable	Digital	Digital
Device	N/A	Any Device	Any Device
Required Prep	Print & Go	Copy & Share	Zero Prep
Student Answers	Printable Answer Pamphlet	Google Sheets Decoder Tool	Integrated Challenge Hub
Self Correcting	Includes Answer Key	Self Correcting	Self Correcting
Custom Videos	QR Codes	Embedded You Tube	Embedded
Audio Readings	N/A	No Audio Readings	Contains Audio Readings
Navigation	N/A	Student Directed	Automatically Advancing
Extras	Early Finish Challenges	Movable Pieces	Interactive Animation

3 Versions

- Print
- Google Slides
- Webscape™ (Our most popular experience)

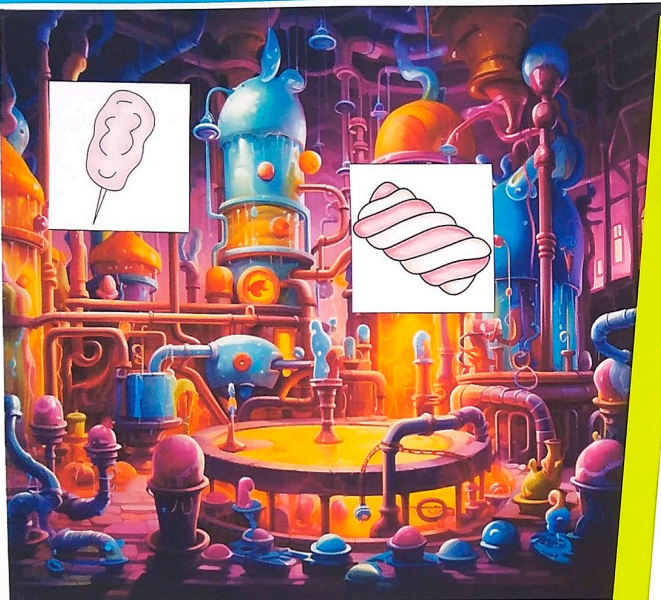
Learn more!



Print

- Cut and paste stamps for each challenge
- Easy to follow
- Optimal for group or partner work
- Recording brochure for answers
- Self-checking decoder
- Certificate of completion

Learn more!



At the end of each challenge, cut out each sticker and paste it on the candy factory to earn the keys to the factory.

Candy Factory Decoder

Use the following codes for each challenge to solve the clues and move to the next challenge

Challenge 1

question 1	question 2	question 3	question 4	question 5	question 6
a = First b = Stirring c = By d = Dyeing	a = mixing b = chocolate c = cooking d = them with	a = water b = and c = them d = sugar,	a = and b = vanilla c = in d = gelatin	a = 2 more b = and other c = the d = in many	a = ingredients. b = together. c = oven. d = colors.

Challenge 2

question 1	question 2	question 3	question 4	question 5	question 6
a = Putting b = By c = Mixing d = Baking					

Challenge 3

question 1
a = Smashing b = Tiny c = All d = The

Challenge 4

question 1
a = Piping b = By c = First d = Taking

CANDY FACTORY RECORDING BROCHURE

Record your challenge answers along your journey.

CHALLENGE 3

	Answer	Code
1.	d	The
2.	c	fun-Size
3.	a	Floor
4.		
5.		
6.		

How did you make the fun sized chocolate?

eggs Bobo

Candy Factory Escape Room



Lucy M.
(Name)

has successfully completed the
challenges and earned the keys
to the Candy Factory.

23 / 04

(Date)

The Candy Factory

Ooops!

You fell in the pot of marshmallows and have to wash
off all the sticky stuff!



YOU MUST STAY QUIET FOR 5
MINUTES. NO SPEAKING!

Print

- OOPS! Cards for differentiation

Learn more!



Webscape TM

- Most interactive experience
- Self correcting
- Embedded videos
- Embedded audio
- Animation
- Simple navigation

Learn more!



Webscape TM

- No log ins or sign ups
- Works with any device that has an internet connection and web browser
- Zero prep! Just share the link with your students.

Learn more!



Google Slides

1.

Fractions Word Problems

There are three candy factory workers who run the sprinkle machines. Paolo is the fastest sprinkle-maker and he produces $\frac{5}{9}$ of all the sprinkles. Makayla is still learning, so she only produces $\frac{1}{6}$ of the sprinkles. What fraction of the sprinkles do Paolo and Makayla make altogether?

- a. $\frac{6}{15}$
- b. $\frac{13}{18}$
- c. $\frac{6}{9}$
- d. $\frac{12}{18}$

Show Your Work

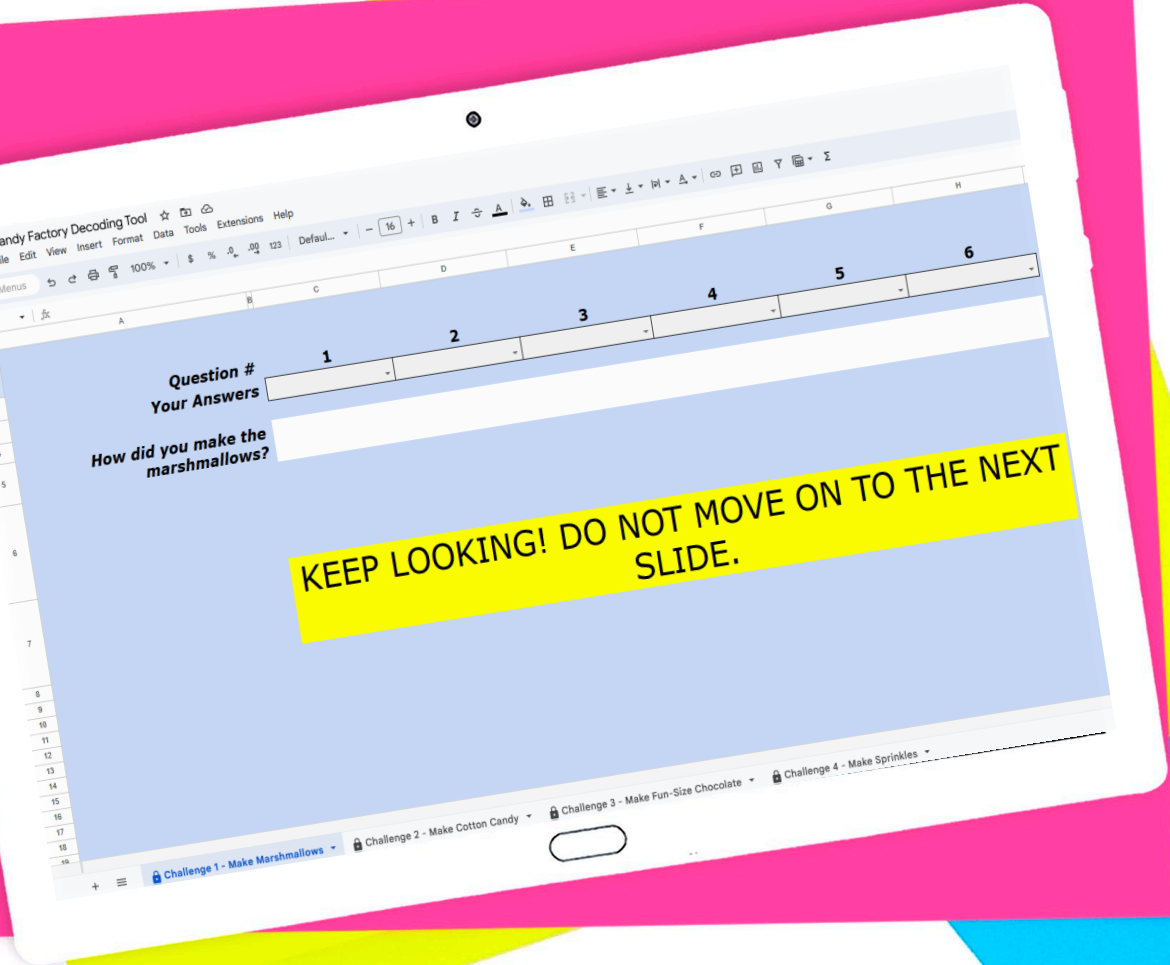
Learn more!



Google Slides

- Toggle to self-checking decoder
- Decoder will prompt at the end of each challenge whether students are correct or need to check their work.

Learn more!



Looking for More?

ESCAPE ROOM BUNDLE Math Skills

5th Grade



Math Escape Rooms

2nd Grade 3rd Grade 4th Grade 5th Grade

MATH: Fractions & Decimals
MATH: Fractions & Decimals
MATH: Fractions & Decimals
MATH: Fractions & Decimals


Telling Time: Time Machine Escape Room

2nd Grade 3rd Grade 4th Grade 5th Grade

Print and Digital

Graphing Points Baking Escape Room

5th Grade



Dear Student,

We love baked goods of all kinds. The boss of the bakery wants the best treats you can. Prove you can make the best treats and the boss will let you go.

You must make these 4 items:

1. Donuts
2. Gingerbread cookies
3. Pie
4. Cake


After each challenge, add the item to your list.

Sincerely,
The Cookie Criminal

Print and Digital

MATH: Classify Shapes Catch the Bandit Escape Room

5th Grade



Dear Student,

You're having a great time visiting the big city! But while you're out seeing the sights, a petty crime caught up with you. A bandit has stolen some money out of your backpack.

You must follow the bandit to catch him and get your money back.

1. Go to the waterfront.
2. Go to Chinatown.
3. Go to the park.
4. Go to Downtown.

After each challenge, add the pin to your map to catch the bandit.

Sincerely,
Friendly Neighborhood Crime Watchers

Print and Digital