

Mindful MATH



Data & Probability

What is Included in this Comprehensive Unit:

- ♥ Standard-based lessons
- ♥ 10 detailed lesson plans
- ♥ Practice worksheets
- ♥ Warm-up task cards
- ♥ Whole group number talks with speaking prompts
- ♥ Discussion questions
- ♥ Vocabulary posters
- ♥ "I Can" math standard posters
- ♥ Mental Math flash cards
- ♥ Math journal prompts
- ♥ Math games and centers
- ♥ Instruction sheets activities
- ♥ 3 assessments: Quick Check task cards, pre & post-tests for each lesson, & unit test

Data Descriptor
Look at the data on each card. Write a sentence to describe it.

Mindful MATH - Data & Probability Lesson 1: Introduction to Data
Students complete Task Card #1 with a partner. Complete Journal Prompt #1 on a sheet of paper with a partner or individually. OPTIONAL: Pre-test
Complete Number Talk Activity #1 together on the board.
Have students either independently or with a partner, complete Mental Math cards set #1 (data gathering questions). Students go through the cards and complete their own journal.

Ask and

Mindful MATH 3rd Grade Data

I Can understand and describe data
Being able to understand and describe data can help us make decisions and solve problems!

Name:
DIRECTIONS: Answer the questions based on the data.
Favourite Color of Students in the Class

Red	3	Blue
Orange	4	Purple
Yellow	0	Pink
Green	2	Black

Which color had the most votes?

Favourite Color

Blue	10
Green	8
Pink	6
Purple	6

Lunch Choices

Packing	15
Buying	9

Mindful MATH Pre-Test - Lesson 1

Name:
Date:

Favourite Snack of Students in the Classroom

Snack	Votes	Snack	Votes
Chips	4	Crackers	2
Pretzels	3	Fruit	1

Animals at Seaview Aquarium

Animal	Number of Animals
Starfish	10
Octopus	15
Jellyfish	20
Seahorses	25

Mindful MATH 3rd Grade Data and Perimeter: Num

Imagine that you are going to your own lemonade stand. What of data would you want to collect? What would you use the data for?

data
A collection of facts: numbers, words, measurements and observations.

table
A way of presenting data using rows and columns.

Mindful MATH Data Probability - Instructions Card Classmate Data - Lesson 1

- Come up with a question to ask others about. Fill it in to the question box at the top. Come up with three choices to choose from. Fill them in the choice 1, 2, and 3 boxes.
- As people are asked, record their answers in the box using symbols, tallies, or even names.
- After the data is collected, write sentences about the data and what information can be learned.

Data is information. I as much data about can.

Data is information. M as much data about can.

Data is information. Ma as much data about you can.

Data is information. Mak as much data about you can.

I would want to know all people like lemonade or just lemonade more.

I would want to know the price of each ingredient in the lemonade.

"I think because"

Mindful MATH



Data & Probability

What's included in this 400+ page unit:

Curriculum Map &
Unit Overview

Unit	Topic
Unit 1	Numbers to 1000
Unit 2	Addition & Subtraction
Unit 3	Multiplication
Unit 4	Division
Unit 5	Fractions
Unit 6	Time & Measurement
Unit 7	Geometry
Unit 8	Data & Probability
Unit 9	Money & Financial Literacy
Unit 10	Algebra & Co.

Lesson	Topic	Skills
Lesson 1	Introduction to Data	Identify data, create a data table, create a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph, create a 3D bar graph, create a 3D line graph, create a 3D dot plot, create a 3D picture graph, create a 3D pictograph, create a 3D line graph, create a 3D scatter plot, create a 3D pie chart, create a 3D circle graph.
Lesson 2	Frequency Tables	Identify data, create a frequency table, create a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.
Lesson 3	Reading Bar Graphs	Identify data, read a bar graph, create a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.
Lesson 4	Creating a Bar Graph	Identify data, create a bar graph, read a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.
Lesson 5	Reading Line Graphs	Identify data, read a line graph, create a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.
Lesson 6	Creating a Line Graph	Identify data, create a line graph, read a line graph, create a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.
Lesson 7	Line Plots and Line Graphs	Identify data, create a line plot, read a line plot, create a bar graph, create a line graph, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.
Lesson 8	Single Events	Identify data, create a single event, read a single event, create a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.
Lesson 9	Introduction to Probability	Identify data, create a probability, read a probability, create a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.
Lesson 10	More on Probability	Identify data, create a probability, read a probability, create a bar graph, create a line plot, create a dot plot, create a picture graph, create a pictograph, create a line graph, create a scatter plot, create a pie chart, create a circle graph.

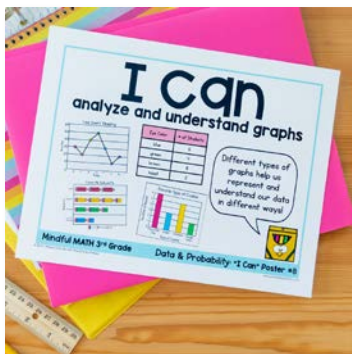
Detailed Lesson Plans

Mindful MATH - Data & Probability Lesson 1 - Introduction to Data	
Opening Activities	Students complete Task Card #1 with a partner. Complete, Quizzed, Thought #1, or a chart to show achievement, or in individual OPTIONAL. The rest.
Number Talks	Complete Number Talk Activity #1 together on the board. Allow students either independently or with a partner complete Mindful Math cards #1-4 (data gathering questions). Students go through the cards and each talks their answer.
Whole Group Lesson	Identify the lesson goal with "I Can" poster #1. Ask students if they know what data is. Take a few answers and then explain that data is information that we collect and organize to help us understand things better. Write students' names with numbers of data within their own day, two, both, and outside of school. (Ex: the number of buses/students each day for each, the temperature each day, etc.) Distribute the Our Data Data worksheet and have students fill out their answers to each question. (Make sure students use the "I" use later) Then, go through each question and have students raise their hands to indicate the answer they chose. Ask the students to describe what they learned from the data. You can model this by using the "I" means the most students in our class chose red as their favorite color than any other." You can also ask questions on their own hands to describe the data shown in class. After going through all the questions, have students explain to a partner that the information helps them to understand their classroom better.
Independent Practice	Students complete the practice or activity pages provided (2 page options for lesson #10). Following the directions on top of each page.
Hands-On Activities	OPTION: Classroom Data - Students come up with a question to ask their classmates and record the answer. They then write sentences to describe the data and what information can be learned. OPTION: Data/Number - Students look at task cards with various data on it and write a sentence to describe it (2 versions are included).

Vocabulary Posters



"I Can" Posters



Task Cards



Mental Math Cards



Mindful MATH



Data & Probability

What's included in this unit:

Number Talks



Worksheets & Answer Keys



Journal Prompts



Hands-On Activities



Discussion Questions

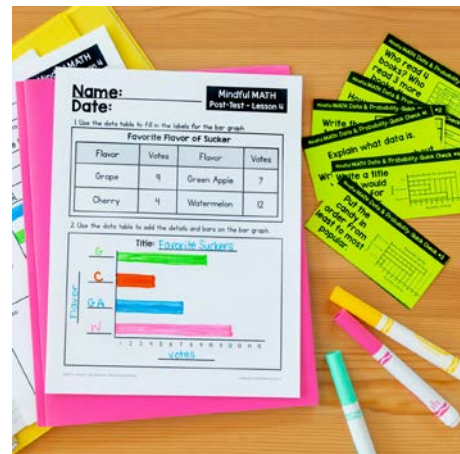
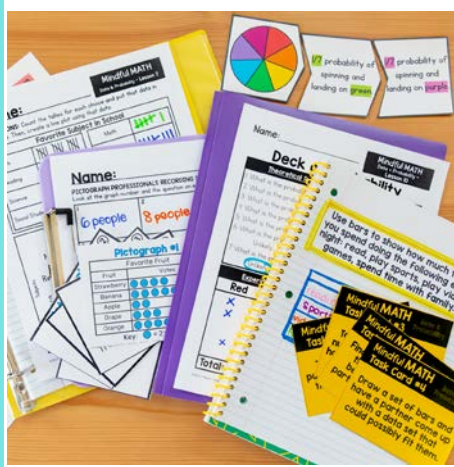


Assessments & Answer Keys



This Mindful MATH unit covers

- ♥ introduction to data
- ♥ frequency tables
- ♥ bar graphs
- ♥ pictographs
- ♥ line plots
- ♥ line graphs
- ♥ introduction to probability
- ♥ theoretical and experimental probability
- ♥ and more!



Mindful MATH

HAS WHAT TEACHERS LOVE!

- This ONE math curriculum unit is all you need to teach this math concept and meet the standards.
- Use each lesson and follow-up activities to cover your math block each week.
- The unit easily extends to an entire month of instruction.
- It covers standards and skills that Third Grade students need to learn before Fourth Grade!
- It saves you time as the planning is done for you!
- Make math FUN with a variety of activities, centers, and games.
- Keep kids engaged and help them build important math skills and fluency!
- You will have ALL the materials you need to successfully teach (with no need to supplement)!



Mindful MATH



See a Lesson Plan Up-Close

Quick, independent warm-up activities.



Mental math cards help build fluency & Number Talks encourage peer interaction.



Lesson can be easily broken down into mini-lessons and small-group instruction.



Use the lesson goal to guide the lesson.



Teach important math vocabulary.



Mindful MATH - Data & Probability	
Lesson 1 : Introduction to Data	
Opening Activities	Students complete Task Card #1 with a partner. Complete Journal Prompt #1 on a chart, on mini whiteboards, or in notebooks. OPTIONAL: Pre-test.
Number Talks	<ul style="list-style-type: none">• Complete Number Talk Activity #1 together on the board.• Have students either independently or with a partner, complete Mental Math cards set #1 (data gathering questions). Students go through the cards and each state their answer.
Whole Group Lesson	<ul style="list-style-type: none">• Introduce the lesson goal with "I Can..." page.• Ask students if they know what data is. Take a few answers and explain that data is information that we collect to help us understand things better.• Help students come up with examples of data within their everyday lives, both in and outside of school. (Ex - the number of apples/packers each day for lunch, the temperature each day, etc.)• Distribute the Open Class Data worksheet and have students fill out their answers to each question. (Make sure to save this to use later)• Then, go through each question and have students raise their hands to indicate the answer they chose.• Prompt the students to describe the data shown from the data. You can model this by saying things like, "It seems like most students in our class chose red as their favorite color." You can also ask questions as they raise hands to describe the data shown in class.• After going through the open class data, explain to students that this information helps them understand their classmates better.
Independent Practice	Students complete the independent practice pages provided (3 page options for differentiation) by following the directions on top of each page.
Hands-On Activities	<p>CENTER: Classmate Questioner - Students come up with a question to ask their classmates and record the answers. They then write sentences to describe the data and what information can be learned.</p> <p>CENTER: Data Describer - Students look at task cards with various data on it and write a sentence to describe it (2 versions are included).</p>

Lessons for the whole group include teacher part and student practice of skills.



Differentiated practice pages build understanding of concepts.



Hands-on math activities, games, and centers build math fluency.



Quick check, pre and post-tests, and a unit test are included.



Discussion questions for whole or small group.

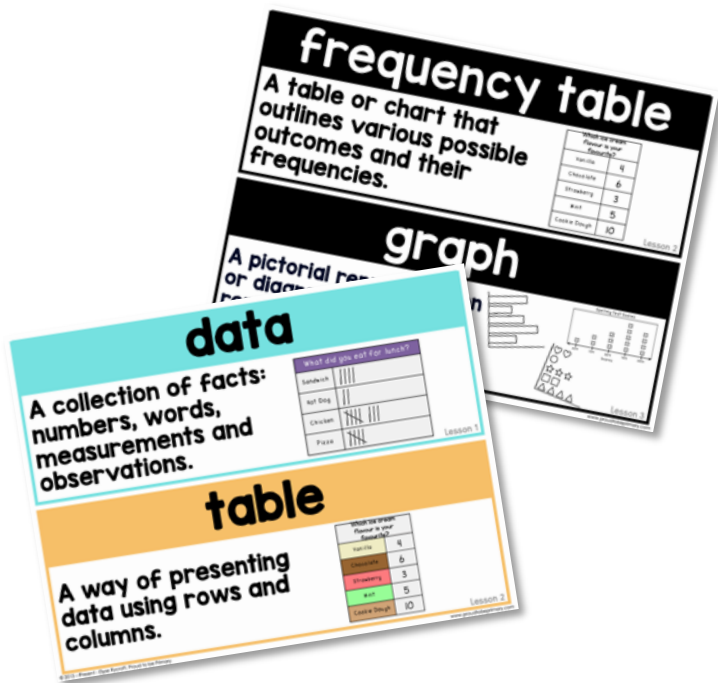


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Vocabulary Posters

Each lesson has vocabulary words that are important for students to understand. You are provided with two types of vocabulary posters (with visuals and without) in both black and white and color for teachers to display in the classroom or on the board for student reference during and after lessons.

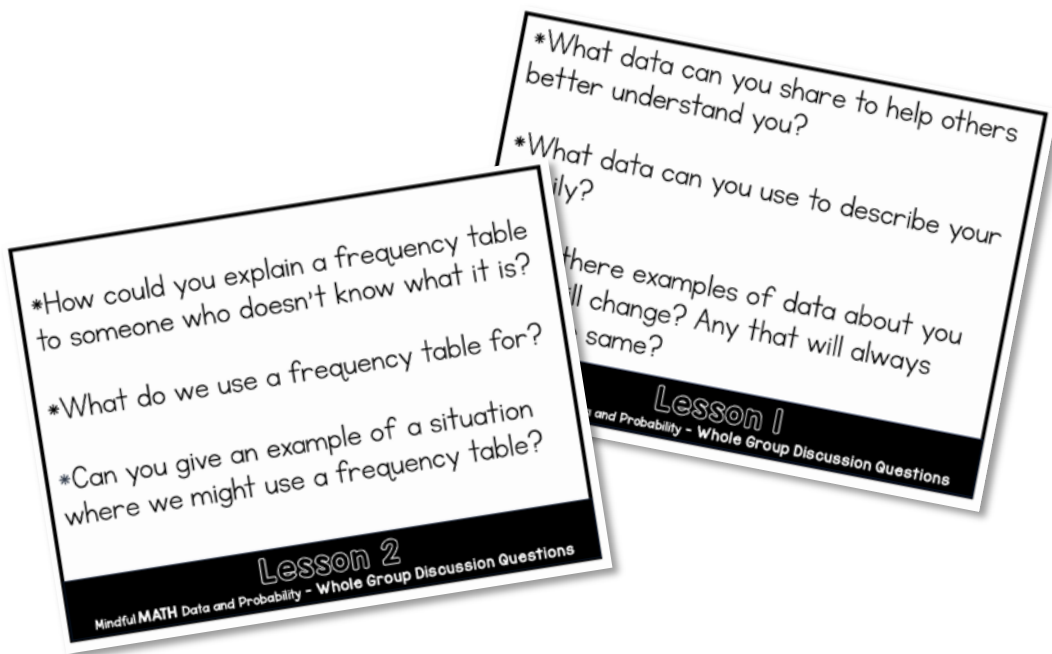


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Discussion Questions

Each lesson has 3 discussion questions that can be used for small group or whole group instruction. The discussion questions are in poster form to be printed for teacher reference or projected for the students to see. You can also find questions on each lesson plan.

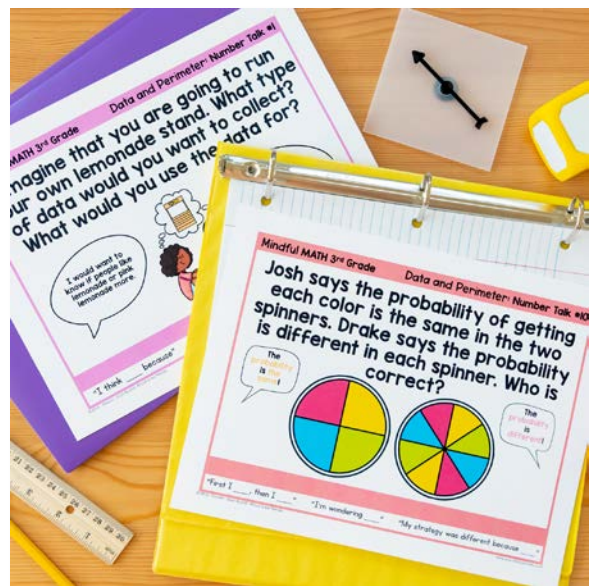
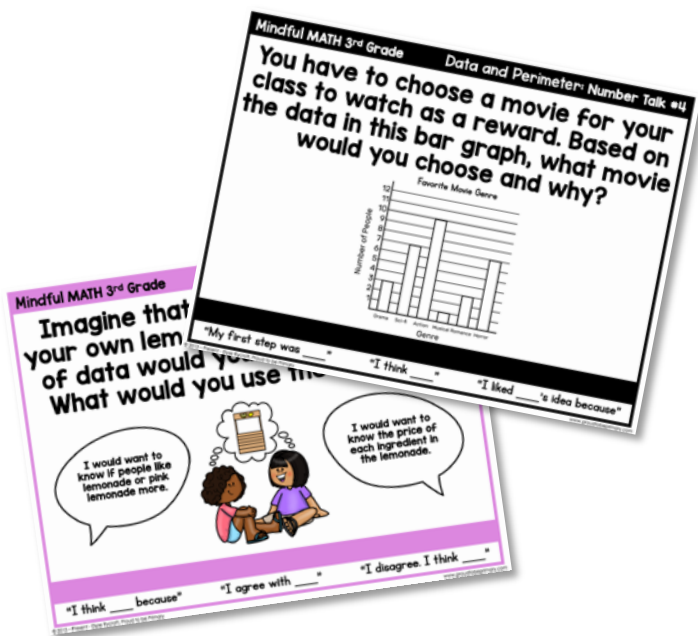


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Number Talks

Number Talks encourage independent thinking while building a student's ability to express their own ideas. Each lesson comes with an open ended math question that can be used for a whole or small group discussion. Speaking prompts are also included on each number talk. An extra PowerPoint file is included for you to project to your class.

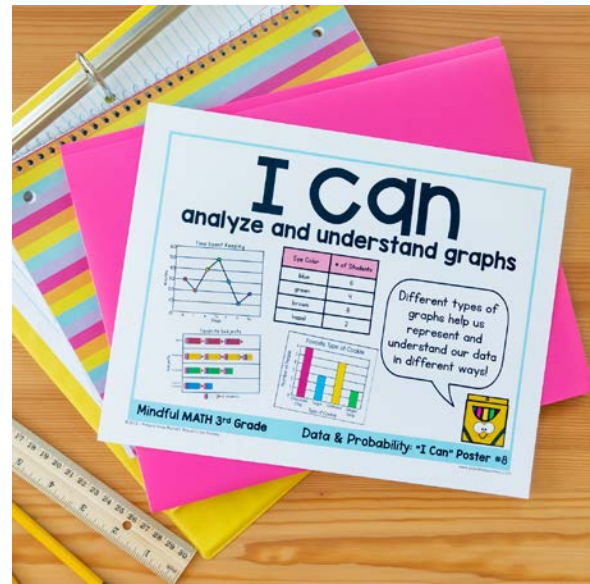
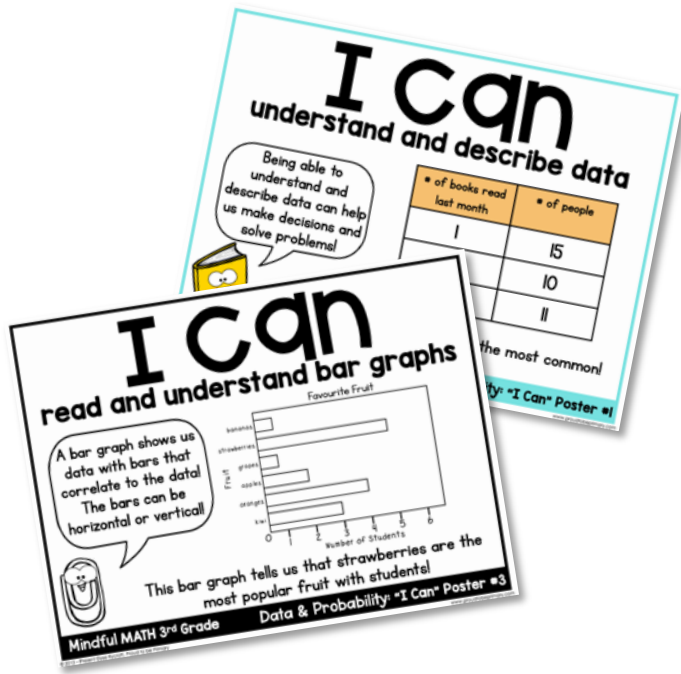


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"I Can" Posters

"I Can" concept posters are included for every lesson in this unit. They clearly describe and illustrate the mathematical concept in the lesson and align to the standards being taught. They are helpful to lead your lesson and as a visual reminder for students. Read the prompts to students, discuss, and then replicate the examples together.



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Warm-Up Task Cards

Task cards are a great warm-up to your math block. They provide a fun way to review and practice the skills taught in the lessons. Have students work independently, with a partner, or as a group to complete a quick math task.



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Mental Math Flashcards

Mental Math flashcards help build a child's mental math ability and fact fluency. Each lesson includes a creative way to use the cards, such as games, fact recall, and student call-out activities. These cards are also great to use as independent and small group review. Simply put them in a box for students to grab!



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Practice Worksheets

Each lesson includes differentiated worksheets for your students to practice their math skills. Select the no-prep worksheets you wish for your students to complete, and then assign. These versatile pages are engaging, straightforward, and fun to complete.

Mindful MATH
Data & Probability - Lesson 1

Name: _____

DIRECTIONS: Answer the questions based on the data given.

Favorite Color of Students in the Classroom		
Red	3	Blue
Orange	4	Purple
Yellow	0	Pink
Green	2	Black

1. Which color had the most votes?
2. Which color had the least votes?
3. Which color was the second r
4. Which two colors got the
5. How many colors got
6. How many colors
7. How many st

Mindful MATH
Data & Probability - Lesson 3

Name: _____

DIRECTIONS: Use the bar graph to answer the questions.

Our Class Pets

Pet	Number of Votes
Cat	10
Dog	12
Fish	5
Bunny	3
Reptile	2
Horse	1
Hamster	4

1. Which pet had the MOST amount of votes?
2. Which pet(s) had the LEAST amount of votes?
3. How many students have a cat?
4. Which two pets had the same number of votes?
5. Which two pets had 25 votes combined?

Mindful MATH
Data & Probability - Lesson 6

Name: _____

DIRECTIONS: Create a bar graph using the data given.

Favorite Candy			
Kit-Kat	8	Starburst	5
Smarties	1	Air Head	3
MM's	10	Reese's Cup	4
Snickles	7	Sucker	2

Favorite Candy

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Math Journals

After each lesson, provide each student with a math journal prompt to review the concept taught. Have students complete the math journal prompt independently and show their work and understanding in a notebook. No more coming up with engaging prompts; these are done for you!



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Math Centers & Games

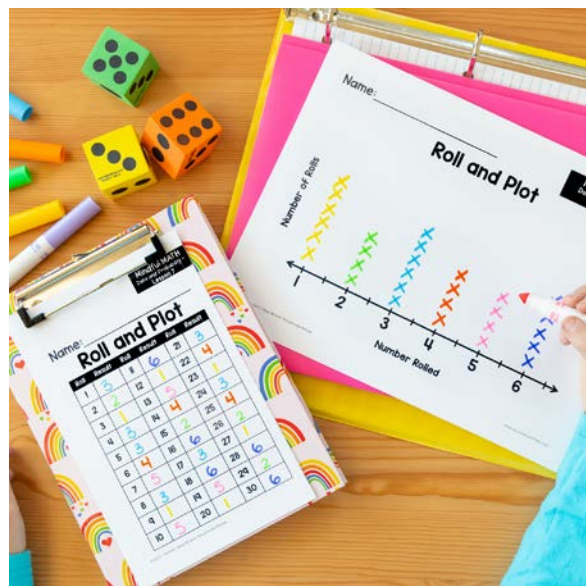
There are a variety of fun and engaging math activities included for every lesson. These hands-on activities encourage focused math practice. They are great for small groups, partner games, and math centers. Instruction cards for each activity are also included!

Mindful MATH Data Probability - Instructions Card
Classmate Data - Lesson 1

- Come up with a question to ask others about. Fill it in to the question box at the top. Come up with three choices to choose from. Fill them in the choice 1, 2, and 3 boxes.
- As people are asked, record their answers in the box using symbols, tallies, or even names.
- After the data is collected, write sentences about the data and what information can be learned.
- There is a word box at the top with words to help.

Classmate Data
What question have you thought of?
What are your choices?
1. _____
2. _____
3. _____
Record the answers in the box below.
Use symbols, tallies, or names.

Classmate Data (cont.)
What do you know about the data?
What do you think the data will show?
Write your answers in the box below.



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3 Types of Assessments

There are three assessments included for every lesson: A 2-page pre-test and post-test, as well as a Quick Check assessment task card. The post-test help provide you with data about what your student knows and if they have acquired the necessary skills they need to know. Use the Quick Checks as a short activity for individuals or small groups to complete and show their understanding. There is also a final unit test.

Mindful MATH Pre-test - Lesson 1

Name: _____ Date: _____

Favorite Snack of Students in the Classroom

Snack	Votes	Snack	Votes
Chips	4	Crackers	2
Pretzels	3	Fruit	9
Popcorn	6	Vegetables	1

Use the data table above to answer the questions.

a. What does the table above tell us?
... students have to choose fr

Mindful MATH Post-test - Lesson 6

Name: _____ Date: _____

3 Count the tallies and put the data in the table. Then, use the data to create a pictograph.

Favorite Weather

Weather	Tally	Number
Sunny		4
Snowy		4
Rainy		3

Use the data table to fill in the labels for the bar graph.

Mindful MATH Data & Probability Quick Check #2

Explain what data is. Write 1 piece of data about yourself or your class.

Mindful MATH Data & Probability Quick Check #3

Put the candy in order from least to most popular.

Mindful MATH Data & Probability Quick Check #4

How many people voted for chocolate?

Mindful MATH Data & Probability Quick Check #5

Who read 4 books? Who read 3 more books than another?

Mindful MATH Post-test - Lesson 4

Name: _____ Date: _____

1 Use the data table to fill in the labels for the bar graph.

Favorite Flavor of Sucker

Flavor	Votes	Flavor	Votes
Grape	9	Green Apple	7
Cherry	4	Watermelon	12

2 Use the data table to add the details and bars on the bar graph.

Title: Favorite Suckers

Y-Axis: Flavor

X-Axis: Votes

Mindful MATH Data & Probability Quick Check #1

Who read 4 books? Who read 3 more books than another?

Mindful MATH Data & Probability Quick Check #2

Write 1 piece of data about yourself or your class.

Mindful MATH Data & Probability Quick Check #3

Explain what data is.

Mindful MATH Data & Probability Quick Check #4

Put the candy in order from least to most popular.

Mindful MATH



Lesson Materials

Everything needed to successfully teach the lessons included in this pack! Some lessons also have student friendly posters of important topics that can be displayed in the classroom. Other lessons may require math tools and we have provided you with printable versions of some of these to make teaching easier.

Our Class Data Sentence Stems

"I notice that most people..."

"I see that the least amount of people..."

"More people than..."

"Less people than..."


Mindful MATH Data & Probability Lesson #9

Probability

Probability is the likelihood something happens.

It can be expressed as a fraction:

The probability of spinning pink is $\frac{1}{4}$



Number of ways get the desired outcome: 1

Total number of possible outcomes: 4

The closer the probability is to 1, the more likely it is. The closer the probability is to 0, the less likely it is.

Mindful MATH Data & Probability Lesson #9

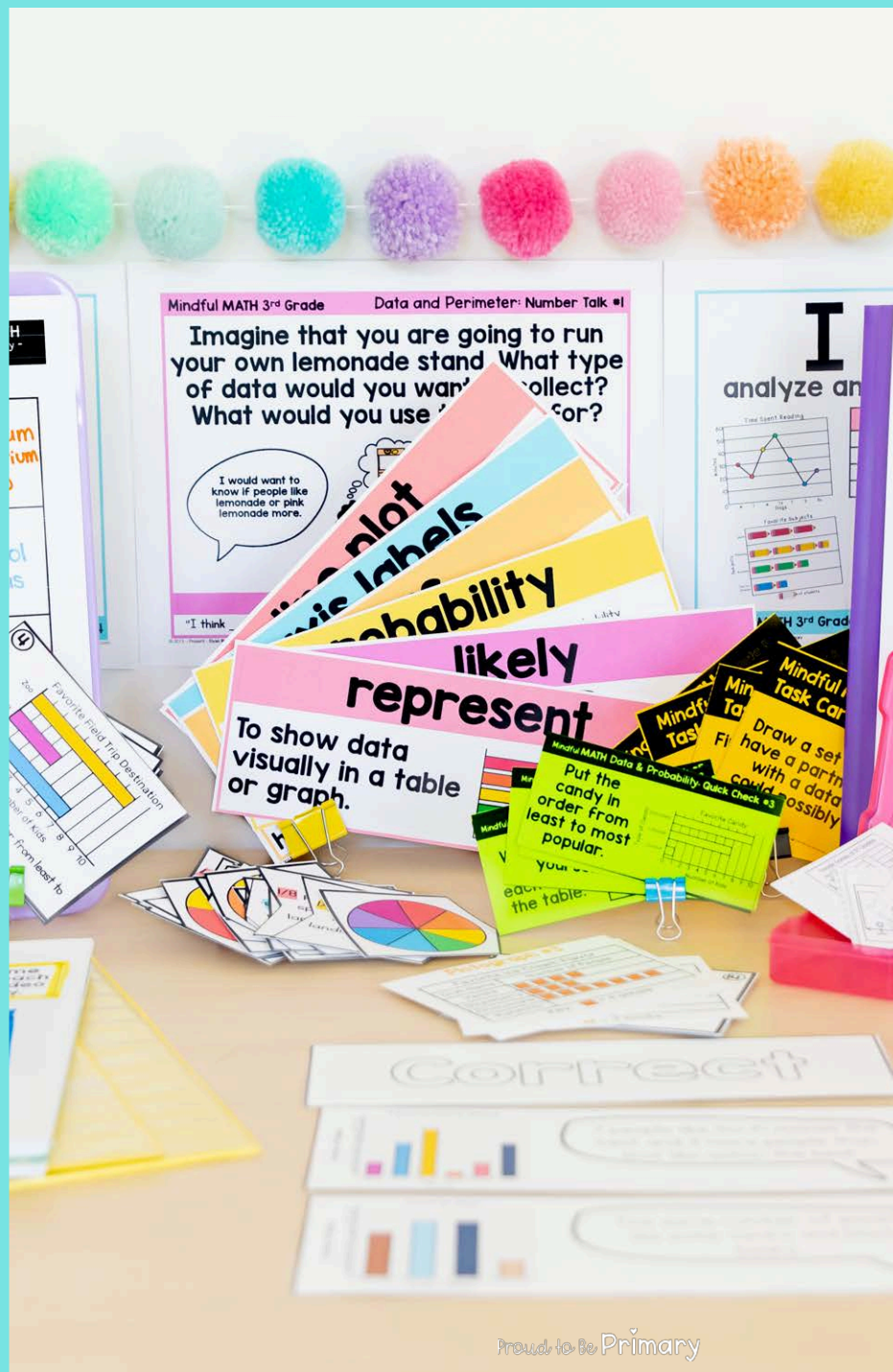
Mindful MATH Data & Probability Lesson 1

Name: _____

Question	Answer
Favorite Color	
Favorite Animal	
Eye Color	
Hair Color	
Birthday Month	
Number of Siblings	
Number of Pets	
Favorite Food	
Favorite Sport	
Age	

Use Mindful MATH for...

- ♥ Your Guided Math routine
- ♥ Whole group mini-lessons
- ♥ Small group instruction
- ♥ Supplement your math program
- ♥ Math warmups
- ♥ Math centers
- ♥ Assessments
- ♥ Sub-plans
- ♥ Home review



Mindful MATH

aligns to the
standards

- 3.MD.B.3
- 3.MD.B.4
- Also includes standards and topics that are not third grade specific but provide valuable learning for future grades.

This unit aligns to Third Grade Common Core standards for measurement and data and other state and Canadian standards.

Use it to teach the standards in the U.S. and Canada.



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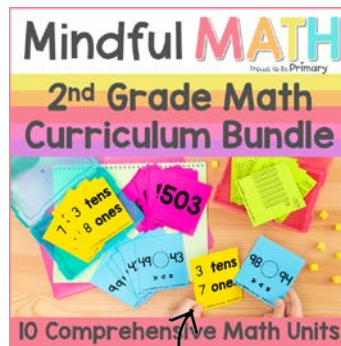


Learn How to Teach **MATH** Effectively in K-3

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Mindful **MATH** Curriculum for K-3

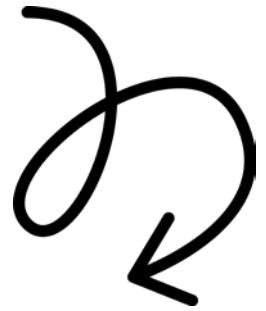


Click the images to see the Mindful Math curriculum **BUNDLES** with **EVERYTHING** you need for the whole year!

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I'd love for you to try a sample of 3rd Grade Mindful Math with your students to see if it is a perfect fit for you and your students!

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