Teacher(s): Mrs. Breazeale & Mr. Contreras   **Subject/Grade:** 7th /Grade Math   **Week of:** Aug 7, 2023

Domain: The Number System ▾   **Lesson Plan Title:** Adding & Subtracting

	MATHEMATICS - Mississippi College and Career Readiness Standards for 7th Grade
Numbers & Operations	7.NS. 1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addi... ▾ 7.NS.1a Describe situations in which opposite quantities combine and make 0. ▾ 7.NS.1b Understand that p + q is the number located a distance from the absolute value of q from p, in the positive or negative directi... ▾ 7.NS.1c Understand subtraction of rational numbers as adding the additive inverse. Show that the distance between two rational nu... ▾

ACROSS CURRICULUM STANDARDS

ELA - Mississippi College and Career Readiness Standards for 7th Grade
Reading Informational Text **CCR.R.10** Read and comprehend complex literary and informational texts independently and proficiently. **RI.7.10** By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. **Writing** **W.7.2d** Use precise language and domain-specific vocabulary to inform about or explain the topic. **W.7.2e** Establish and maintain a formal style. **W.7.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. **W.7.10** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. **Language** **CCR.L.1:** Demonstrate command of the conventions of standard English grammar and usage when writing (printing, cursive, or keyboarding) or speaking. **CCR.L.2:** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **L.7.2b** Spell correctly. **L.7.6** Acquire and use accurately grade-appropriate general academic and domain specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

ESSENTIAL QUESTION: What strategies can I use to add and subtract rational numbers?

Date	Day	Objective	Focus Question	I will...
	M	TSWBAT subtract integers by using manipulatives to solve problems from RCC workbook with 80% accuracy by the end of the lesson.	Which strategies can I use to subtract integers?	(1)Use a horizontal or vertical number line to model subtracting integers. (2)Subtract integers without a number line.
	T	TSWBAT complete an iReady math lesson by taking notes on key vocabulary and at least three example problems with 80% accuracy by the end of the lesson.	How do mathematicians use iReady to enhance their mathematical skills?	Use iReady to enhance my mathematical skills.
	W	TSWBAT examine, analyze, and correct their current mixed practice test (MPT) by reviewing resources provided by the teacher, consulting with peers, and/or asking the teacher for help with 100% accuracy by the end of the lesson.	How do mathematicians analyze and correct their graded tests in order to reflect on knowledge needed to master 7th grade math standards?	-Differentiate between silly mistakes and lack of knowledge. -In writing, explain the silly mistake and rework the problems that contain silly mistakes. -Use resources to help correct mistakes where mastery is not yet obtained.
	Th	TBA based on MPT data.		
	F	TSWBAT add and subtract integers by using number lines and manipulatives to solve problems from RCC workbook with 80% accuracy by the end of the lesson.	Which strategies can I use to add and subtract integers?	(1)Use models to subtract integers.. (2)Subtract integers without a number line.

REMEDIATION & ENRICHMENT

Students	Skill(s) & Activity	Days
P25	More challenging questions. Opportunities to think outside the box.	M-F
Bubbles	More challenging questions. More feedback from the teacher and visuals if needed.	M-F
T25	Cue to stay on task. More feedback from the teacher. More visuals.	M-F

MONDAY_ Aug 7, 2023

Essential Question: What strategies can I use to add and subtract rational numbers?

Focus Question: Which strategies can I use to subtract integers?

I will…
- ☐ Use a horizontal or vertical number line to model subtracting integers.
- ☐ Subtract integers without a number line.

Bell Ringer: TSW will complete three MAAP test questions 7.NS.1a, 7.NS.1b, and 7.NS.1c. **(5 minutes)** TTW review. **(5 minutes)**

ANTICIPATORY SET: (5 minutes)

Hook: **[Student 2],** What would you say if I took away your bookbag? **(Answers will vary.) [Student 3],** What would you say if I took away your pencil? **(Answers will vary.)**

Real-World Connection: Say, "Normally when we think of something being taken from us, it is a bad thing. But this is not always the case. I want you to close your eyes and think of something negative happening in your life. (Pause) Okay, I'll go first, I wish someone would take away my student loan debt. **[Student 4],** What negative thing would you want me to take away? **(Answers will vary.) [Student 5],** What negative thing would you want me to take away? **(Answers will vary.) [Student 6],** What negative thing would you want me to take away? **(Answers will vary.)**

Importance/Relevance: TTW Present the essential and focus questions. Explain the lesson goals.

TEACHER INPUT: <mark>(15 minutes)</mark>

The teacher will...

- Instruct students to write the title " Subtracting Integers" at the top of their paper.

- Show the video "Subtracting Integers - How to Subtract Positive and Negative Integers" at https://www.youtube.com/watch?v=1DKWG5CBeek.

- Pause at 00:16. Instruct students to write the problems from the video leaving space in between.

- Pause at 01:40 and write the expression 6 - (-4) on the board. "6 take away 4 negatives. Let's see what that looks like with integer chips." Draw 6 pluses and say, "There are not any negatives to take away, so let's create some."

- Use a think-aloud strategy - "The only way to create negative is to add zero pairs. I know it won't change the problem since 1 + (-1) = 0 and adding zero to a problem does not change it." Draw a plus and a minus on the board. "Since I have to take away 4 negatives, that means I need a total of 4 zero pairs." Draw three more pluses and minuses. Now I have 4 negatives to take away." Cross out 4 negative integer chips. Say, "And that leaves me with 10 positive integer chips."

- Pause at 2:08 and write the expression -5 – 3 on the board. "-5 take away 3 positives. Let's see what that looks like with integer chips." Draw 5 minuses and say, "There are not any positives to take away, so let's create some by adding zero pairs." Draw 3 zero pairs (3 pluses and 3 minuses) and say, "I now have 3 positives to take away." Cross out 3 pluses, "Leaving me with a total of -8.

- Repeat this process throughout the duration of the video. For question 3, pause at 02:45 and for question 4, wait for the video to finish playing.

- Pass back their(MS_RCC) handout (From Day 1).

Independent Practice: <mark>(10 minutes)</mark>

The student will...

- TTW direct students to page 10 of their handout (MS_RCC).

- Complete problems 2-11. (Productive Struggle is BEAUTIFUL!

- TTW lap the room giving students feedback.

Teacher Input: ==(6 minutes)==

The student will...

- Review problems 2-11.

CLOSURE: TSW summarize the lesson. Point out common mistakes and praise the students that did well. ==(3 minutes)==

Homework: Read over any and all notes for at least 10 minutes.

ASSESSMENT: Teacher observation and completed MS_RCC activity pages

MATERIALS: notebook paper, MS_RCC workbooks pages 8-11, individual number lines for each student, video

TUESDAY_ Aug 8, 2023

MPT 1.3 will be given this morning.

WARM-UP/HOOK: *The student will* login to iReady and complete a lesson on their path. Take notes on lesson vocabulary and lesson goals. **(5 minutes)**

TEACHER INPUT: **(5 minutes)**
The teacher will …
- Present the lesson objectives.
- Review the requirements to receive help on the lesson quiz - all vocabulary with definitions must be written down, at least 3 examples recorded from the lesson, and I need to see evidence that the students attempted to work out the current problem on paper.

INDEPENDENT PRACTICE: **(30 minutes)**
The student will …
- Listen and complete the assigned lesson to the best of their ability.
- Complete the lesson quiz with 80% or higher accuracy.

STUDENT REFLECTION/EXIT TICKET: *The student will* complete an exit ticket based on today's learning target. The teacher will use this data to determine which students need extra support. **(5 minutes)**

MATERIALS: notebook paper or "iReady Notes template," computers, projector, exit tickets
ASSESSMENT(S): Teacher observation, exit tickets, iReady lesson quiz results

MPT 1.3 Results

Class	0% - 49% (Critical)	50% - 69% (Emerging)	70% - 100% (Proficient)
1st			
3rd			
4th			
5th			
7th			

WEDNESDAY_ Aug 9, 2023

WARM-UP/HOOK: *The student will* grab a data analysis sheet and a class set of Tuesday's test. Write their name, date, etc. *The teacher* will pass back their Tuesday tests. **(5 minutes)**

TEACHER INPUT: **(2 minutes)**
The teacher will …
- Direct student to mark an "X" on the questions that the students missed.
- Explain that they will use the class set of the test that includes "Teacher Notes" to rework the problems and/or explain what silly mistake they made.

INDEPENDENT PRACTICE: **(30 minutes)**
The student will …
- Rework problems on their test paper.
- Justify why they missed certain problems.
- Compare their graded test to the teacher's class set/guided notes and questions.
- Identify careless mistakes and correct them.
- Use the UNRAVEL test taking strategy for math for questions not understood.
- Use the videos under the topic "Helpful Videos" in Google classroom recommended by the teacher for each question not understood.
- Notify the teacher when they think they are finished for feedback/review.
- Staple data analysis sheet to the top of their test.
- Get it signed by their parents or guardian and return the following day

Meanwhile…

TEACHER CONFERENCES: The teacher will invite individual students to her desk to discuss their most recent MPT and clear up any misconceptions and offer support. **(30 minutes)**

EARLY FINISHERS: The student will get iReady or Math Prodigy and wait patiently to be called to the teacher's desk to discuss the test and any misconceptions.

TEACHER INPUT: (10 minutes)

The teacher will …
- Review the most missed problems or take any questions the students have.
- Check over student work and provide feedback.
- Choose a student to staple the remainder of the student's paper.
- Explain that it is mandatory to bring their tests back signed by tomorrow.

STUDENT REFLECTION/EXIT TICKET: *The student will* complete an exit ticket based on the most missed question(s). The teacher will use this data to determine which students need extra support. **(5 minutes)**

MATERIALS: graded Tuesday tests, test analysis sheets, stapler, staples, exit tickets

ASSESSMENT(S): Teacher observation, exit tickets, Tuesday tests

THURSDAY_ Aug 10, 2023

#9 THURSDAY - TUESDAY TEST DEEP DIVE REVIEW

To Be Announced based on the most recent MPT Math data.

Most Missed Standard(s)	Objective(s)	Activity
	TSWBAT	
	TSWBAT	
	TSWBAT	

Meanwhile...

TEACHER CONFERENCES: TTW will finish inviting individual students to her desk to discuss their most recent MPT and clear up any misconceptions and offer support. **(30 minutes)**

STUDENT REFLECTION/EXIT TICKET: *The student will* complete an exit ticket based on the most missed question(s). The teacher will use this data to determine which students need extra support. **(5 minutes)**

MATERIALS: returned Tuesday tests, exit tickets

ASSESSMENT(S): Teacher observation, exit tickets

FRIDAY_ Aug 11, 2023

Essential Question: What strategies can I use to add and subtract rational numbers?

Focus Question Day 3: Which strategies can I use to add and subtract integers?

I will...
- ☐ Use models to subtract integers..
- ☐ Subtract integers without a number line.

Bell Ringer: TSW will complete three MAAP test questions 7.NS.1a, 7.NS.1b, and 7.NS.1c. **(5 minutes)** TTW review. **(5 minutes)**

ANTICIPATORY SET: Say, "We are going to review what we have learned about adding and subtracting integers. We are going to practice subtracting integers using models that do not include a number line. We are refining the strategies we have learned for adding and subtracting integers so when we move onto our overall go, that is the essential question, which is learning strategies to add and subtract rational numbers, we will be ready." Show the lesson goals for the day. **(3 minutes)**

TEACHER INPUT: **(15 minutes)**

The teacher will...

- Instruct students to write the video title on their paper.
- Show the video, "Math Antics - Adding & Subtracting Integers" at https://www.youtube.com/watch?v=_BgblvF90UE&t=254s
- 01:10, Pause and instruct students to copy Rule 1: Adding a negative is the same as subtracting a positive.
- 01:40, pause and instruct students to copy the example: 5 + (-1) = 5-1.
- 01:57, Pause and instruct students to copy Rule 2: Subtracting a negative is the same as adding a positive.
- 02:35,, pause and instruct students to copy the example: 5 - (-1) = 5+1.
- 03:10, pause and instruct students to copy the four cases one might come across when adding and subtracting integers. [Case 1: + +, Case 2: + -,Case 3: - -, and Case 4: - +)
- 09:12, pause and summarize what the video said while instructing students to copy additional notes.
- Write: $a + b = a - (-b)$/ This case will always be positive; $a + (-b) = a + -b$/ This case will be positive, negative, or zero; $-a + (-b) = -a - b$/ This case will always be negative; $-a + b = -a - (-b)$/ This case will be positive, negative, or zero. on the board.and let a = 5 and b = 2. Go through each case.

- 10:21, pause and instruct students to copy down the questions to ask: 1) Am I starting with a positive or negative? 2) Am I making it bigger or smaller? 3) Will my answer be positive, negative, or zero.
- Let the video finish playing.

GUIDED PRACTICE: : (7 minutes)

The teacher will...

- Instruct students to turn to page 169 in their workbook (RCC_ Lesson 9_ Understand Subtraction with Negative Integers) and gently tear this page out.
- Point out key information "Family Letter."
- Instruct students to flip this page over to page 170.
- **[Student 8],** How are the equations in the first set alike?**(Answer:** Both are negative minus a negative.)
- **[Student 9],** How are the equations in the first set different?**(Answer:** One equation has a negative difference and the other equation has a positive difference.)
- **[Student 10],** How are the equations in set 2 alike?**(Answer:** Both have a negative solution.)
- **[Student 11],** How are the equations in set 2 different?**(Answer:** One The first equation is adding and the second one is subtracting.)
- **[Student 12],** How are the equations in set 3 alike?**(Answer:** Both equations' totals increased.)
- **[Student 13],** How are the equations in set 3 different?**(Answer:** One equation is adding and the other is subtracting..)
- Instruct students to turn to page 171.

Independent PRACTICE: : (10 minutes)

The student will...

- Complete pages 171-172/1-6, and 174/1-6. (Productive struggle is BEAUTIFUL!)

CLOSURE: TSW complete an exit ticket with three MAAP test questions 7.NS.1a, 7.NS.1b, and 7.NS.1c. **(5 minutes)**

Homework: Read over any and all notes for at least 10 minutes.

ASSESSMENT: Teacher observation, completed workbook pages, and exit tickets.

MATERIALS: RCC workbooks, notebook paper, video, bell ringer questions, exit tickets

MISSISSIPPI STATE STANDARDS ACROSS CURRICULUM

Math Standards

Numbers & Operations:

7.NS. 1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

7.NS.1a Describe situations in which opposite quantities combine and make 0.

7.NS.1b Understand that p + q is the number located a distance from the absolute value of q from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0. Interpret sums of rational numbers by describing real-world contexts.

7.NS.1c Understand subtraction of rational numbers as adding the additive inverse. Show that the distance between two rational numbers on a number line is the absolute value of their difference, and apply this principle in real-world contexts.

7.NS.1d Apply properties of operations as strategies to add and subtract rational numbers.