***TE 801 Final Unit Plan: Sections 1 – 6***

***Taylor Raymond***

***Section 1: Big Ideas, Learning Goals, & Related Skills***

**Unit: Adding and Subtracting Whole Numbers and Decimals**

Big Ideas:

1. Students apply their understanding of decimal models, place value, and properties to add and subtract decimals.

2. Place value of whole numbers and decimals has an impact on the meaning of numbers in addition and subtraction.

3. Students make reasonable estimates of decimal sums and differences by relating back to whole number estimations.

4. Understanding the function of the decimal and its relative location in the number is essential to estimation and rounding.

Related Skills and Goals:

*Michigan Grade Level Content Expectations:*

N.FL.04.08 Add and subtract whole numbers fluently

N.ME.04.17 Locate tenths and hundredths on a number line.

N.ME.04.18 Read, write, interpret, and compare decimals up to two decimal places.

N.MR.04.31 For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.

N.FL.04.32 Add and subtract decimals through hundredths.

N.ME.05.08 Understand the relative magnitude of ones, tenths, and hundredths and the relationship of each place value to the place to its right, e.g., one is 10 tenths, one tenth is 10 hundredths.

*Learning Objectives:*

Lesson 2-1: Students will be able to compute sums and differences mentally using the Commutative and Associative Properties of Addition, compatible numbers, and compensation for whole numbers.

Lesson 2-2: Students will be able to round whole numbers through millions and decimals through thousandths.

Lesson 2-3: Students will be able to use rounding and compatible numbers to estimate sums and differences of whole numbers and decimals.

Lesson 2-4: Students will be able to use pictures and write equations to help them solve problems.

***Section 2: Assessments***

***Part A – Assessment Plan***

Copy of Pre-Assessment:

Sheena and her 11 friends wanted to go to the softball game. Sheena went and bought 3 student tickets for $1.75 each. She didn’t have enough money to buy the rest. How many more tickets does she need to buy and what would be the total cost of those tickets?

I distributed an open-ended question which challenged my students in the different areas that Unit 2 focuses on: adding and subtracting whole numbers, adding and subtracting of decimals, looking for patterns in decimals, and solving multi-task mathematical problems.

Pre-Assessment results:

Unfortunately, not one student thought to add Sheena plus her 11 friends to get 12 tickets total she had to buy. 5 of my 24 students were able to find that 11-3 = 8 more tickets to buy and 1.75 x 8 = 14.00. These were the closest answers to the correct ones.

I found several consistencies in the students work. There were generally 4 solutions among the students.

Solution 1: Students found 11-3=8 and added 1.75 up 8 times.

1.75 11-3 = 8 more tickets.

1.75

1.75

1.75

1.75

1.75

1.75

+ 1.75

$14.00

Solution 2: Students used multiplication to find the cost of the remaining tickets.

11-3 = 8 more tickets

1.75

x 8

$14.00

Solution 3: Students used a form of grouping to visually draw each ticket.

1.75

1.75

1.75

1.75

1.75

1.75

1.75

1.75

1.75

1.75

1.75

= 5.25 = 5.25 = 5.25 = 3.50

3 = $5.25 2 = $3.50

5.25 15.75

5.25 + 3.50

+ 5.25 $19.25

$15.75

Solution 4: Students used a form of division.

3 1.75 = .52

1 ticket = .52

After looking at the pre-assessment results, I am enthusiastic that students already have the readiness to solve multi-task problems. I also see that my students either are already adding decimals or skipped right to multiplication of decimals. This worries me that this unit may be too much of a review for most. However, I didn’t incorporate any subtraction of decimals into my pre-assessment and subtraction seems to be more difficult for students than addition. I was also happy to see several students using grouping as a way to find a solution. This is a great strategy to add multiple decimals together without using multiplication and I am glad to see that some students are already comfortable using this method.

Using the Pre-Assessment to plan my unit:

After looking at my pre-assessment results, I feel that my unit will have to be a review for students at some points since there were many students who didn’t use any type of adding decimals in their solutions. A review will be beneficial for almost every student since there still were errors in most of their solutions. I found about 5 students attempted to solve the problem and then began scribbling and writing random numbers. This tells me that although I have some students that were able to find the solution fairly easily, I also have some students who show a complete lack of confidence in this area. I plan to do some differentiated instruction to reach these students.

Copy of Summative Assessment:

My summative assessment incorporates problems from worksheets, book activities, math centers, and homework assignments. I also added my pre-assessment question to see the improvement from the beginning of the unit to the end of the unit.

I have attached my Unit Summative Assessment in the email.

Copy of Formative Assessments:

*Formative assessments to take from lesson 1:*

*Partner worksheets, in-class work, and exit slips are important components to reviewing the concept of mental math.*

* **Partner worksheet** – assess how well students can do mental math, write their thinking process, and work with partners

**Strength**: Shows the work of two students together

**Weakness**: Won’t be completed individually, difficult to determine what each student did in the activity

* **Observation notes** – teacher notes on specifically chosen students will assist me on meeting their individual needs during differentiated instruction

**Strength**: My notes will be informative for individual students

**Weakness**: Notes will be difficult to take during lessons, they may be few and far between until my lesson is completed

* **Pg.25 (9-26)** – in class work will assess how the students can incorporate the strategies they learned in the lesson

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

* **Exit slips** – question is the same for every student to see if they can solve a simple problem from the lesson, and asks students to share what they still don’t understand

**Strength**: A good way to sum up the big ideas of the lesson and assess students on them

**Weakness**: The questions may not determine well enough who is struggling and who isn’t

*Formative Assessments to take from lesson 2:*

*In-class work, exit slips and homework practice and reinforce the lesson topic of rounding decimals.*

* **Number line worksheets** – assesses how well students follow in class lesson
* **Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic
* **Weakness**: Without watching students individually it will be difficult to judge where students are struggling
* **Teacher observational notes** – teacher notes on specifically chosen students will assist me on meeting their individual needs during differentiated instruction

**Strength**: My notes will be informative for individual students

**Weakness**: Notes will be difficult to take during lessons, they may be few and far between until my lesson is completed

* **Practice 2-2: Rounding Whole Numbers and Decimals Worksheet** – homework assignment to see how well students can practice the tasks they learned in the lesson at home

**Strength:** Homework is a good reinforcement tool for students to review the lesson taught that day

**Weakness:** Parents will likely help students with their homework, not a good assessment tool

* **Re-teaching 2-2 Worksheet –** extra practice for students who had trouble with in class lesson

**Strength:** Homework is a good reinforcement tool for students to review the lesson taught that day

**Weakness:** Parents will likely help students with their homework, not a good assessment tool

* **Exit Slips** – question is the same for every student to see if they can solve a simple problem from the lesson, and asks students to share what they still don’t understand

**Strength**: A good way to sum up the big ideas of the lesson and assess students on them

**Weakness**: The questions may not determine well enough who is struggling and who isn’t

*Formative assessments to take from differentiated instruction (lesson 3):*

*Math centers installed to differentiate instruction for learners below-level, on-level, and above-level with rounding decimals.*

* **Teacher observational notes** – teacher notes on specifically chosen students will assist me on meeting their individual needs during differentiated instruction

**Strength**: My notes will be informative for individual students

**Weakness**: Notes will be difficult to take during lessons, they may be few and far between until my lesson is completed

* + **Exit slips** – question is the same for every student to see if they can solve a simple problem from the lesson, and asks students to share what they still don’t understand

**Strength**: A good way to sum up the big ideas of the lesson and assess students on them

**Weakness**: The questions may not determine well enough who is struggling and who isn’t

* + **Intervention: “Rounding Whole Numbers” worksheet** – assesses students ability to practice math concepts in smaller, teacher guided setting

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

* + **On-Level: “Display the Digits” worksheet, Pg.29 (25-29)** – assesses students ability to practice math concepts during differentiated instruction

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

* **Advanced: “Display the Digits” worksheet, Individual word problems** – assesses students ability to practice math concepts during differentiated instruction

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

*Formative assessments to take from lesson 4:*

*In-class activities and exit slips build on the concept of adding decimals the objective for lesson 4.*

* **Place-value charts** – assesses how well students follow in class lesson
* **Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic
* **Weakness**: Without watching students individually it will be difficult to judge where students are struggling
* **Teacher observational notes** – teacher notes on specifically chosen students will assist me on meeting their individual needs during differentiated instruction

**Strength**: My notes will be informative for individual students

**Weakness**: Notes will be difficult to take during lessons, they may be few and far between until my lesson is completed

* + **Exit slips** – question is the same for every student to see if they can solve a simple problem from the lesson, and asks students to share what they still don’t understand

**Strength**: A good way to sum up the big ideas of the lesson and assess students on them

**Weakness**: The questions may not determine well enough who is struggling and who isn’t

* **2-5 Practice: Adding and Subtracting worksheet** – homework assignment to see how well students can practice the tasks they learned in the lesson at home

**Strength:** Homework is a good reinforcement tool for students to review the lesson taught that day

**Weakness:** Parents will likely help students with their homework, not a good assessment tool

* **2-5 Re-teaching worksheet –** extra practice for students who had trouble with in class lesson

**Strength:** Homework is a good reinforcement tool for students to review the lesson taught that day

**Weakness:** Parents will likely help students with their homework, not a good assessment tool

*Formative assessments to take from lesson 5:*

*In class activity, exit slips, and homework reinforce the lesson objective of adding decimals.*

* **Decimal place-value charts** – assesses how well students follow in class lesson

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

* **Teacher observational notes** – teacher notes on specifically chosen students will assist me on meeting their individual needs during differentiated instruction

**Strength**: My notes will be informative for individual students

**Weakness**: Notes will be difficult to take during lessons, they may be few and far between until my lesson is completed

* **2-6 Practice: Adding Decimals worksheet** – homework assignment to see how well students can practice the tasks they learned in the lesson at home

**Strength:** Homework is a good reinforcement tool for students to review the lesson taught that day

**Weakness:** Parents will likely help students with their homework, not a good assessment tool

* **2-6 Re-teaching: Adding Decimals worksheet –** extra practice for students who had trouble with in class lesson

**Strength:** Homework is a good reinforcement tool for students to review the lesson taught that day

**Weakness:** Parents will likely help students with their homework, not a good assessment tool

* **Exit Slips** – question is the same for every student to see if they can solve a simple problem from the lesson, and asks students to share what they still don’t understand

**Strength**: A good way to sum up the big ideas of the lesson and assess students on them

**Weakness**: The questions may not determine well enough who is struggling and who isn’t

*Formative assessments to take from differentiated instruction (lesson 6):*

*Math centers installed to differentiate instruction for below-level, on-level, and above-level math learners on adding decimals.*

* + **Teacher observational notes** – teacher notes on specifically chosen students will assist me on meeting their individual needs during differentiated instruction

**Strength**: My notes will be informative for individual students

**Weakness**: Notes will be difficult to take during lessons, they may be few and far between until my lesson is completed

* + **Exit slips** – question is the same for every student to see if they can solve a simple problem from the lesson, and asks students to share what they still don’t understand

**Strength**: A good way to sum up the big ideas of the lesson and assess students on them

**Weakness**: The questions may not determine well enough who is struggling and who isn’t

* + **Intervention: Adding Decimals Tic-Tac-Toe sheet** – assesses students ability to practice math concepts in smaller, teacher guided setting

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

* + **On-Level: Clip and Cover board sheet** – assesses students ability to practice math concepts during differentiated instruction

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

* + **Advanced: Clip and Cover board sheet** – assesses students ability to practice math concepts during differentiated instruction  
    **Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

*Formal assessments to take from lesson 7:*

*In-class activities, exit slips, and homework will build on the concept of subtracting decimals the objective for the lesson.*

* **Decimal place-value chart** – assesses how well students follow in class lesson

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

* **Teacher observational notes** – teacher notes on specifically chosen students will assist me on meeting their individual needs during differentiated instruction

**Strength**: My notes will be informative for individual students

**Weakness**: Notes will be difficult to take during lessons, they may be few and far between until my lesson is completed

* **Practice 2-7: Subtracting Decimals worksheet** – homework assignment to see how well students can practice the tasks they learned in the lesson at home

**Strength:** Homework is a good reinforcement tool for students to review the lesson taught that day

**Weakness:** Parents will likely help students with their homework, not a good assessment tool

* **Re-teaching 2-7: Subtracting Decimals worksheet –** extra practice for students who had trouble with in class lesson

**Strength:** Homework is a good reinforcement tool for students to review the lesson taught that day

**Weakness:** Parents will likely help students with their homework, not a good assessment tool

* **Exit slips** – question is the same for every student to see if they can solve a simple problem from the lesson, and asks students to share what they still don’t understand

**Strength**: A good way to sum up the big ideas of the lesson and assess students on them

**Weakness**: The questions may not determine well enough who is struggling and who isn’t

*Formative assessments to take from lesson 8:*

*In class activity will combine all concepts from unit to condense into multi-step word problems this lesson will review the objectives from each of the day’s lessons.*

* **Teacher observational notes** – teacher notes on specifically chosen students will assist me on meeting their individual needs during differentiated instruction

**Strength**: My notes will be informative for individual students

**Weakness**: Notes will be difficult to take during lessons, they may be few and far between until my lesson is completed

* **Pg.47-48 (4-9)** – in class work will assess how the students can incorporate the strategies they learned in the lesson

**Strength**: Shows students individual understanding of the day’s lesson, gives students more practice in the topic before the homework or moving onto the next topic

**Weakness**: Without watching students individually it will be difficult to judge where students are struggling

* **Exit Slips** – question is the same for every student to see if they can solve a simple problem from the lesson, and asks students to share what they still don’t understand

**Strength**: A good way to sum up the big ideas of the lesson and assess students on them

**Weakness**: The questions may not determine well enough who is struggling and who isn’t

*Formative assessments to take from lesson 9:*

* **Student responses to review questions** – assesses how well students are able to answer questions similar to the summative assessment

***Part B – Assessment Plan Analysis***

How well does your assessment plan match your objectives?

I created a GLCE map to ensure that my summative assessment covered my unit objectives.

**Unit 2 Test - GLCE map**

**Lesson 2-1**

**GLCE:**

**N.FL.04.08** Add and subtract whole numbers fluently

Add mentally.

420 + 23 + 180

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Which two of the numbers above (420, 23, 180) are compatible numbers?

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

Solve.

Five different gymnasts had scores

of 7.781, 7.945, 7.762, 8.019, 8.013.

Order the scores from greatest to least.

1st Place Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2nd Place Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3rd Place Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4th Place Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5th Place Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lesson 2-2**

**GLCE:**

**N.ME.04.17** Locate tenths and hundredths on a number line.

**N.ME.04.18** Read, write, interpret, and compare decimals up to two decimal places.

**N.ME.05.08** Understand the relative magnitude of ones, tenths, and hundredths and the relationship of each place value to the place to its right, e.g., one is 10 tenths, one tenth is 10 hundredths.

Round each number to the place of the underlined digit.

32.073 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

45.683 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6890 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name two different numbers that round to 50 when rounded to the nearest ten.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

What is the definition of rounding?

a) Always round up to the nearest whole number.

b) Circle the number that is your answer.

c) Knowing what numbers are around your answer.

d) To replace a number with the closest multiple of 10, 100, 1,000, and so on.

**Lesson 2-5**

**GLCE:**

**N.FL.04.08** Add and subtract whole numbers fluently

|  |  |
| --- | --- |
| **Occupation** | **Workers** |
| Public officials | 573,000 |
| Natural scientists | 260,000 |
| University teachers | 931,000 |
| Lawyers and judges | 824,000 |

How many people were employed as public officials and natural scientists?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How many more people were employed as university teachers than as lawyers?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lisa has a basket of 17 tomatoes. She makes sauce with 9 of them. If Lisa wants to split up the rest of the tomatoes between her 3 friends and herself, how many tomatoes does each person get?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Which is the difference between 403,951 and 135,211?

a) 200,000

b) 221,365

c) 268,740

d) 539,162

**Lesson 2-6**

**GLCE:**

**N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.

**N.FL.04.32** Add and subtract decimals through hundredths.

Solve.

6 . 7 1

+ 5 . 3 4

2 5 . 5 8

+ 7 . 6 2

At a flower shop, Teri sees that roses are $3 each, carnations are $4 for 3 flowers and tulips are $4 for 4 flowers. She buys 3 roses and 3 carnations. She has $20.

How much does Teri spend?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| **Location** | **Rainfall amount in year 2005** |
| Macon, GA | 45 |
| Boise, ID | 12.19 |
| Caribou, ME | 37.44 |
| Springfield, MO | 44.97 |

How much total rainfall did Boise, ID and Macon, GA have together?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Which two cities had the greatest combined rainfall for 2005?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lesson 2-7**

**GLCE:**

**N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.

**N.FL.04.32** Add and subtract decimals through hundredths.

Solve. Write Answers in boxes.

1 5 . 3

- 7 . 3 5

. 2 8

At a local swim meet, the second place swimmer of the 100 meter freestyle had a time of 9.33 sec. The first place swimmer’s time was 1.32 seconds faster than the second place swimmer. The third place swimmer’s time was 13.65 sec.

What was the time for the first place swimmer?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What was the difference in time between the second and third place swimmers?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

At a flower shop, Teri sees that roses are $3 each, carnations are $4 for 3 flowers and tulips are $4 for 4 flowers. She buys 3 roses and 3 carnations. She has $20.

How much change does Teri get back?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lesson 2-8**

**GLCE:**

**N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.

**N.FL.04.32** Add and subtract decimals through hundredths.

Luis has a $10 bill and three $5 bills. He spends $12.75 on the entrance fee to an amusement park and $8.50 on snacks.

How much money does Luis have to start with?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How much does he spend at the amusement park?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How much money does he have left?

a) $15.60

b) $13.75

c) $19.75

d) $14.25

Sheena and her 11 friends wanted to go to the softball game. Sheena went and bought 3 student tickets for $1.75 each. She didn’t have enough money to buy the rest.

How many more tickets does she need to buy?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What would be the total cost of those tickets?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Elias saved $30 in July, $21 in August, and $50 in September. He spent $18 on movies and $26 on gas.

How much money does Elias have left?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

All of my formative assessments assess how well my students are understanding the day’s lesson. Each lesson scaffolds onto the next. Therefore each assessments directly connects to the next.

There are strengths and weaknesses to each of my formative assessments which is discussed in the section above. A lot of my formative assessments are also data collection and not open-ended tasks. I will try to direct my unit around this and create my exit slip questions so I meet all different kinds of math learners.

What do my students have to do to succeed in assessments?

To be successful in my unit and assessments students will have to relate their understanding and learning of adding and subtracting decimals to real-life situations.

Multi-step word problems and open-ended tasks from Exemplars will be used to prepare students for these topics and assessments.

To guarantee success in assessments students will have to participate in in-class activities and lessons. Most of my formative assessments will not be graded on correct answers but more on effort and basic understanding. Therefore students will need to simply try their best and implement the concepts learned in the lesson into the worksheets, activities, and homework.

Specific concepts students will need to know include: mental math, rounding decimals, adding and subtracting whole numbers, adding and subtracting decimals, and multi-step word problems.

What parts of assessments do you expect to be most difficult for students?

I expect students to have the most trouble with Exit Slips. This is a new activity for them, especially explaining their thinking and concerns. I hope with a good explanation of what I expect and am looking for in the slips and modeling those expectations for my students will help them.

Multi-step word problems are going to also be difficult for my students. My pre-assessment was this, and although students attempted to solve it, the multi-step problem affected their math strategies.

I focused on adding of decimals in my pre-assessment which went pretty well for most students, however I wish I would have included subtraction of decimals in it to give me a better understanding of what will be difficult for my students.

How will your formative assessment allow you to monitor students progress in ways that are both informative to your teaching decisions and manageable to the time you have to spend on them?

I believe that multiple formative assessments will allow me to monitor student’s progress in different ways and strategies. All of my assessments will be informative not only to see whether students are learning the material but also what assessments and activities help in students understanding of the material.

What skills will students need that are not explicitly a part of your objectives?

Students will use reading and writing skills on lessons, in-class activities, and homework.

How will you figure out if children’s performances on the assessments are affected by these secondary skills? What accommodations can you offer?

Having multiple formative assessments per day with different tasks and written and vocal expectations will accommodate all students, especially those that struggle with secondary skills. Specifically Exit Slips that require both reading and writing, could be completed by student vocally answering each question and teacher writing short notes on their answers and explanations.

What learning styles do these assessments emphasize? How can you help those who learn in other ways to succeed?

Multiple formative assessments allows me to reach most learning styles. Again, students participation is what is most emphasized in all assessments, however, there will always be the option for teacher assistance for those students who feel they cannot succeed in the formative assessment given, whether it be teacher-guided, student assistance, or help from the resource room all students will have the opportunity to succeed.

***Section 3. Differentiating Instruction***

Table identifies students who need special differentiated instruction:

|  |  |  |  |
| --- | --- | --- | --- |
| **Students who struggle** | **Students with IEP’s** | **Students working at grade-level** | **Students working above grade-level** |
| Dillon | Mackenzie | Micheal B. | Jordan |
| Michael P. | Bryan | Austin | Trey |
| Tylar | Katie | Majel | Alexus |
| Kristin | Rory | Rachel | Jamie |
|  | Whyatt | Brendon | Kaelan |
|  |  | Aubrie | Brittany |
|  |  | Libby | Murrissia |
|  |  | Jessie |  |

1. ***What will you do to differentiate your instruction so that you meet the needs of all of your learners?***

Extra support materials (written directions and answer keys) will be provided during the discussion lesson that will meet the needs of all learners, specifically those who struggle and those with IEP’s.

Group lesson is focused on meeting each student’s individual needs to support and advance their understanding of adding decimals.

* + Three groups (intervention, on-level, advanced) were created to address the issues, understandings and misconceptions of below-level, on-level and above-level math learners.
  + Each activity is based on objectives for the lesson and targets each student’s math level.
  + I will spend part of the class time working directly with the below-level learners to instruct and assist them in their math learning.
  + All struggling students and students with IEP’s will be placed in group 1 to work with the teacher-guided center.
  + Partners were chosen based on “multiple” abilities, relationships, and social needs.

1. ***How will you support students who may struggle?***

Struggling students will be provided any necessary extra support materials (written directions and answer keys) that will promote their learning.

During the independent and group work time, I will make sure to check in and confer with my students who need extra support.

In my lesson plans, I have added:

Possible questions or suggestions for those who are struggling:

* Make sure students have lined up their decimals and place values correctly.
* Ask them, “If you were to add 10 + 2, you wouldn’t write it:”
  + - 10

+ 2\_\_\_

* “Cover all of the other place values except the one you are solving.”
* “Think of it as solving a single-digit addition problem.”

These questions will help students focus on what they are struggling with, find where they have misconceptions and apply new understandings to support their task and learning.

1. ***How will you support students who have IEP’s?***

Students with IEP’s will be provided any necessary extra support materials (written directions and answer keys) that will promote their learning.

During the independent and group work time, I will make sure to check in and confer with my students who need extra support.

Students in our room with IEP requirements are expected to go to the resource room if needed, where resources and materials are given for further academic and social support.

1. ***How will you support the students who are English Language Learners?***

There are no ELL students in my class.

***Section 4. Projected Sequence of Lessons***

Taylor Raymond

Math Unit: Sequence of Lessons

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DAY** | **GLCE’s and OBJECTIVES** | **OUTLINE OF ACTIVITIES** | **BIG IDEAS** | **MATERIALS** | **PROCESS GOALS** |
| Monday, October 26  (Unit Plan –  Day 1) | Objective for Lesson 2-1:  Students compute sums and differences mentally using compatible numbers and compensation.  GLCE’s covered in Lesson 2-1:  **N.FL.04.08** Add and subtract whole numbers fluently | Mental Math   1. Introduce mental math topic 2. Pose problem to students 3. Create one vocabulary card: compatible numbers 4. Partner work: creating mental math problems to pose to partner 5. Create another vocabulary card: compensation 6. Read help box in book, pg. 24 7. Work on pg. 25 (9-26) 8. Students can do exemplars or do “Problem of the Day” when finished with in class work. 9. If time, check in class. 10. Exit Slips   *Students will practice adding multi-digit numbers by using compensation and adding compatible numbers. Students will also make vocabulary cards for these two concepts.* | Big Ideas for Lesson 2-1:   1. There is more that one way to do a mental calculation. 2. Techniques for doing calculations mentally involve changing the numbers or the expression so the calculation is easy to do mentally. | * Math folders * Math Vocabulary Cards * White board/Smart board * Partner worksheet * Teacher observation notes * Student EnVision mathbook * Exit slips | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Tuesday, October 27  (Unit Plan –  Day 2) | Objectives for Lesson 2-2:  Students round whole numbers through millions and decimals through thousandths.  GLCE’s covered in Lesson 2-2:  **N.ME.04.17** Locate tenths and hundredths on a number line.  **N.ME.04.18** Read, write, interpret, and compare decimals up to two decimal places.  **N.ME.05.08** Understand the relative magnitude of ones, tenths, and hundredths and the relationship of each place value to the place to its right, e.g., one is 10 tenths, one tenth is 10 hundredths. | Rounding Whole Numbers and Decimals   1. Review of yesterday’s mathematical concepts 2. Create one vocabulary card: rounding 3. Using a number line to round decimals 4. Students can do exemplars or do “Problem of the Day” when finished with in class work. 5. Assign homework 6. Exit Slips   *Students will practice rounding whole numbers mentally. We will then apply this method of rounding to rounding decimals. Students will also practice rounding numbers with the assistance of a number line. Students will also make a vocabulary card for the mathematical term, rounding.* | Big Ideas for Lesson 2-2:  Rounding is a process for finding the multiple of 10, 100, 1,000, etc., closest to a given number. | * Math folders * Math Vocabulary cards * White board/Smart board * Number line worksheets * Teacher observational notes * Practice 2-2: Rounding Whole Numbers and Decimals Worksheet * Re-teaching 2-2 Worksheet | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Wednesday, October 28  (Unit Plan –  Day 3) | Objectives for Lesson 2-2:  Students round whole numbers through millions and decimals through thousandths.  GLCE’s covered in Lesson 2-2:  **N.ME.05.08** Understand the relative magnitude of ones, tenths, and hundredths and the relationship of each place value to the place to its right, e.g., one is 10 tenths, one tenth is 10 hundredths.  **N.ME.04.17** Locate tenths and hundredths on a number line.  **N.ME.04.18** Read, write, interpret, and compare decimals up to two decimal places. | Differentiated Instruction   1. Review of yesterday’s mathematical concepts 2. Do several problems as a class pg. 29 (10, 11, 18, 21)   *Math center 1* is meeting with me. When we break, come up to the front of the room with a pencil. We will be working on whole number rounding and then you will complete a worksheet to practice this further.  *Math center 2* is going to meet here with a pencil. You will be working with partners on this “Display the Digits” worksheet. When you have completed the worksheet, return to your desk and complete pg.29 (25-29) Problem Solving.  *Math center 3* is going to meet here with a pencil. You will be working with partners on this “Display the Digits” worksheet. When you have finished you will get a blank sheet of paper and create a word problem, where you have to round decimals to find the answer. On the back of your worksheet write the answer to your problem. Give your problem to your partner to solve. When you both have finished return them and create another problem.   1. Students can do exemplars or do “Problem of the Day” when finished with in class work. 2. Exit Slips   *Students will be divided up into three different groups based on their formative assessments for differentiated instruction. The three groups (intervention, on-level, and advanced) will complete activities, either partner or teacher-guided, to practice rounding decimals.* | Big Ideas for Lesson 2-2:  Rounding is a process for finding the multiple of 10, 100, 1,000, etc., closest to a given number. | * Math folders * White board/Smart board * Teacher Observational Notes * Exit Slips | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Thursday, October 29  (Unit Plan –  Day 4) | Objectives for Lesson 2-5:  Students compute sums and differences of two large whole numbers.  GLCE’s covered in Lesson 2-5:  **N.FL.04.08** Add and subtract whole numbers fluently | Adding and Subtracting Whole Numbers   1. Practice adding and subtracting with place-value charts 2. Students do pg. 39 (12-18 evens) 3. Students can do exemplars or do “Problem of the Day” when finished with in class work. 4. If time, check in class. 5. Assign homework 6. Exit Slips   *Students will discuss the process of adding and subtracting whole numbers, (lining up the place values, carrying and of tens). Then with the assistance of a place-value chart students will practice these mathematical skills.* | Big Ideas for Lesson 2-5:  The standard addition and subtraction algorithms multi-digit numbers break the calculation into simpler calculations using place value starting with the ones, then the tens, and so on. | * Math folders * Place-value charts * White board/Smart board * EnVision book * Paper * Pencil * Teacher observational notes * Exit Slips * 2-5 Practice: Adding and Subtracting worksheet * 2-5 Re-teaching worksheet | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Friday, October 30  (Unit Plan –  Day 5) | Objective for Lesson 2-6:  Students compute sums of decimals involving tenths, hundredths, and thousandths.  GLCE’s covered in Lesson 2-6:  **N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.  **N.FL.04.32** Add and subtract decimals through hundredths. | Adding Decimals   1. Adding decimals with help from decimal place-value charts 2. Create one vocabulary card: First thing to do when adding decimals 3. Students do pg. 42 (9-25 odds) 4. Students can do exemplars or do “Problem of the Day” when finished with in class work. 5. If time, check in class. 6. Assign homework 7. Exit Slips   *Students will relate the process of adding multi-digit whole numbers to adding decimals. Students will create a vocabulary card illustrating this process (Line up the decimals, start at the place value farthest to the right).* | Big Ideas for Lesson 2-6:   1. Adding or subtracting multi-digit decimals is similar to adding or subtracting whole numbers. 2. In order to add a multi-digit decimal problem correctly, it is essential that you line up the decimals. | * Math folders * Math vocabulary cards * Decimal place-value charts * White board/Smart board * Pencil * Teacher observational notes * EnVision book * Paper * 2-6 Practice: Adding Decimals worksheet * 2-6 Re-teaching: Adding Decimals worksheet * Exit Slips | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Monday, November 2 (Unit Plan –  Day 6) | Objective for Lesson 2-6:  Students compute sums of decimals involving tenths, hundredths, and thousandths.  GLCE’s covered in Lesson 2-6:  **N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.  **N.FL.04.32** Add and subtract decimals through hundredths. | Differentiated Instruction   1. Review yesterday’s mathematical concepts with decimal place-value charts 2. *Math center 1* will be playing Adding Decimals Tic-Tac-Toe. You will get with a partner and roll the dice to see who goes first, the higher number wins. The first person will roll each dice. The first dice will be the number they pick on the left. The second dice will be the number they pick on the right. You must add those two decimals together. You get one try; if they get an answer and it is on the board, X it off with your color marker, than your partner goes. If you get an answer that isn’t on the board, their turn is over. Whoever gets the first tic-tac-toe either vertically, horizontally or diagonally wins. Once you have finished playing, turn the sheet over and play again. 3. *Math Center 2* will be playing Clip and Cover. You will get with a partner and roll the dice to see who goes first, the higher number wins. The first person will roll each dice. The first dice will be the number they pick on the left. The second dice will be the number they pick on the right. You must add those two decimals together. You get one try; if they get an answer and it is on the board, X it off with your color marker, than your partner goes. If you get an answer that isn’t on the board, their turn is over. Whoever gets the first tic-tac-toe either vertically, horizontally or diagonally wins. Once you have finished playing, turn the sheet over and play again. 4. *Math Center 3* will be playing Clip and Cover. You will get with a partner and roll the dice to see who goes first, the higher number wins. The first person will roll the one dice. Choose that number circle on either the left or right. Example: If you roll a 3, choose the 3rd circle on the right or the 3rd circle on the left. The number you chose is a sum. Find the box with the two numbers that you can add to get that sum. You get one try; if they get an answer and it is on the board, X it off with your color marker, than your partner goes. If you get an answer that isn’t on the board, their turn is over. Whoever gets the first tic-tac-toe either vertically, horizontally or diagonally wins. Once you have finished playing, turn the sheet over and play again. 5. Students can do exemplars or do “Problem of the Day” when finished with in class work. 6. Exit Slips   *Students will be divided up into three different groups based on their formative assessments for differentiated instruction. The three groups (intervention, on-level, and advanced) will participate in a game to practice adding decimals.* | Big Ideas for Lesson 2-6:   * 1. Adding or subtracting multi-digit decimals is similar to adding or subtracting whole numbers.   2. In order to add a multi-digit decimal problem correctly, it is essential that you line up the decimals. | * Math folder * Decimal place-value chart * White board/Smart board * Teacher observational notes * Exit slips | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Tuesday, November 3 (Unit Plan –  Day 7) | Objective for Lesson 2-7:  Students compute differences of decimals involving tenths, hundredths, and thousandths.  GLCE’s covered in Lesson 2-7:  **N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.  **N.FL.04.32** Add and subtract decimals through hundredths. | Subtracting Decimals   * 1. Solve subtracting decimals with help from decimal place-value charts.   2. Do pg. 45 (12-23) and (26-27)   3. Students can do exemplars or do “Problem of the Day” when finished with in class work.   4. If time, check in class.   5. Assign homework   6. Exit Slips   *Students will relate subtracting of whole numbers and adding of decimals to the mathematical concept of subtracting decimals. Students will practice subtracting problems through whole class discussion with the assistance of decimal place-value charts.* | Big Ideas for Lesson 2-7:  Adding or Subtracting multi-digit decimals is similar to adding or subtracting mulit-digit whole numbers. | * Math folder * Math vocabulary cards * Decimal place-value chart * EnVision book * Paper * Pencil * White board/Smart board * Teacher observational notes * Practice 2-7: Subtracting Decimals worksheet * Re-teaching 2-7: Subtracting Decimals worksheet * Exit slips | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Wednesday, November 4 (Unit Plan –  Day 8) | Objective for Lesson 2-8:  Students use multi-steps to solve a variety of mathematical problems.  GLCE’s covered in Lesson 2-8:  **N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.  **N.FL.04.32** Add and subtract decimals through hundredths. | Problem Solving: Multi-Step Problems   1. Solve multi-step problems as a class 2. Discuss the problems, using questions to guide the students:    * What information do we know?    * What question does the problem ask?    * What part do you have to solve before you can answer the question asked? 3. Students do pg. 47-48 (4-9) in class 4. Students can do exemplars or do any Unit 2 “Problem of the Day” activity. 5. If time, check in class. 6. Exit Slips   *Students will use all of the mathematical concepts from this unit, mental math, rounding, adding/subtracting whole numbers, and decimals to solve multi-step word problems. Students will discuss how to solve multi-step word problems and create a vocabulary card with guiding questions to assist them in these word problems. Students will practice as a whole class finding the sub problem answer and then applying that to find the solution to the original question.* | Big Ideas for Lesson 2-8:  To solve a multi-step problem, you first have to find a solve a sub problem(s) and then use that answer(s) to solve the original problem. | * Math folder * Paper * Pencil * Teacher observational notes * Math vocabulary cards * White board/Smart board * EnVision book * Exit Slips | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Thursday, November 5 (Unit Plan –  Day 9) | Objective:  Students will review the mathematical concepts they have learned in Unit 2. | Test Review Day  1. Number students off by 4’s.  2. Students will play The Classroom Feud.  3. Discuss game rules.  4. Play game.  5. Do “Problem of the Day” questions at the end of the review session.  *Students will practice all mathematical concepts from unit 2 to review for the test.* | Students will practice all mathematical concepts for unit 2 to review for the test. | * White board/Smart board * Scrap paper * Pencil * Power-point slideshow with Classroom feud questions * Students’ Unit 2 worksheets * Math vocabulary cards | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |
| Friday, November 6  (Unit Plan –  Day 10) | Objective:  Students will be assessed on the mathematical concepts they have learned in Unit 2. | Test Day   1. Tests will be distributed to each student. 2. Students have full class time to take test. 3. Students are allowed to read or draw after completion of the test.   *Students will take a summative assessment on Unit 2.* | Students will apply all mathematical concepts for unit 2 in the test. | * + Unit 2 Test   + Pencil | Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems |

EXEMPLARS ADDITIONAL ACTIVITIES and EXTENDED ACTIVITIES

Whenever students finish early, they are instructed to check their work and then are given the option to either try the “Problem of the Day” or an Exemplars math activity.

The “Problem of the Day” is a higher-level math problem that reinforces the mathematical skill or concept covered in that day’s lesson or any lesson prior. A “Problem of the Day” will be available for lesson 2-1 to 2-8. As a class, we will go over each “Problem of the Day” question and solution on the review day before the unit test.

The Exemplars math activity is a higher-level thinking open-ended task. This isn’t busy work or additional practice. It is a fun math activity students can spend the whole unit working on. The activities chosen do align with the unit objectives and learning goals.

Exemplars activities chosen for this unit:

* Party Seating
* What is fair?
* Playground Fun

STUDENT ATTENTION STRATEGIES

To get students attention I will use one of two strategies. My first strategy is to countdown from five. I count slowly enough that if students need to get to their seat or write their name on their paper they can do so without feeling rushed. Any students that aren’t ready to listen to instructions at that time have their name written on the board with a check. My second strategy depends on the attentiveness of the class. Occasionally on a Friday or when the students have had an eventful day it is harder to get their attention with this countdown strategy. In the event that this happens, I walk to the board and looking prepared to write names on the board I begin reciting student’s names that are following directions and sitting quietly, ready for instructions. The warning of getting their name up on the board gets the students attention very quickly.

***Section 5. Detailed Plans for 2 Lessons***

|  |  |
| --- | --- |
| ***Lesson Plan***  Lesson 2-6: Adding Decimals  DISCUSSION LESSON  ***Name of Teacher:*** Taylor Raymond  ***School:*** Leslie Middle School  ***Grade level:*** 5th Grade  ***CT:*** Jean Maiville  ***Date:*** Friday, October 30 (Unit Plan-Day 5) 1:45pm – 2:40pm  ***Objectives for today’s lesson:***  Objective for Lesson 2-6:   * Students will label the place value of decimals up to the thousandths place. * Students compute sums of decimals involving tenths, hundredths, and thousandths. * Students will justify and explain their solution and reasoning for a problem.   Rationale/GLCE’s covered in Lesson 2-6:  **N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.  **N.FL.04.32** Add and subtract decimals through hundredths.  ***Big Ideas:***  Big Ideas for Lesson 2-6:   * Adding or subtracting multi-digit decimals is similar to adding or subtracting whole numbers. * In order to add a multi-digit decimal problem correctly, it is essential that you line up the decimals.   ***NCTM Process Goals:***  Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems   ***Materials & supplies needed:***   * 24 Math folders * 24 Math vocabulary cards * 24 Decimal place-value charts * White board/Smart board * Pencil * Teacher observational notes * Student EnVision book * 24 Sheets of paper * 2-6 Practice: Adding Decimals worksheet (24) * 2-6 Re-teaching: Adding Decimals worksheet (10) * 24 Exit Slips | |
| ***Procedures and approximate time allocated for each event***  *•* ***Introduction to the lesson (****What will I say to help children understand the purpose of the lesson? How will I help them make connections to prior lessons or experiences? How will I motivate them to become engaged in the lesson?)*  1. Two student volunteers will help distribute math folders.  2. “You have learned in this unit how to add whole numbers and round decimals.”  3. “Today, you will focus on adding decimals.”  4. Question to class: “Can you think of any situations where you need to add decimals?”  (I expect students to say finding the total cost of items)  (I will give students a 10-second wait time to think)  5. Write student responses on white board.  6. “Adding decimals is an important math skill to have in everyday life.”  **(2-3 minutes)**  *•* ***OUTLINE of key events******during the lesson*** *(Include specific details about how I will begin and end activities; what discussion questions I will use; how I will help children understand behavior expectations during the lesson; when/how I will distribute supplies and materials)*  **1.** Let’s do a problem together where we have to find the total cost of some items.  **2.** Put problem on smart board.  Read problem: “Mr. Davidson has to buy supplies for his neighborhood barbeque. The first trip to the grocery store he buys chips, hot dogs & buns, pop, hamburgers & buns, and ice-cream. The total cost is $21.39. The second trip to the store he buys plates, napkins, cups, and spoons. The total cost is 14.27. How much does Mr. Davidson spend on all of his barbeque supplies?”  **3.** “Before we begin to solve the problem, let’s think back to our previous lessons. How do you add whole numbers?”  (Align the numbers by place value, then add them)  (10 second wait time)  Does anyone remember the place-value charts that we used? (Yes)  Do you think a place-value chart would help you with this problem?  (Yes)  How would you use a place-value chart to help you add decimals?  (Line up the place values and decimals)  (10 second wait time)  **4.** Two student volunteers will help distribute decimal place-value charts.  **5.** Tell students that we will solve this problem as a class.  **6.** Go over behavioral expectations for whole class discussion:   * You need to be following along on your place-value chart with mine on the board. * If you would like to answer a problem or add something, please raise your hand and wait to be called on.   **7.** “How do we add these two numbers with the decimal place-value chart?”  (Line up the decimal points)  (10 second wait time)  **8.** On the white board write a decimal place-value chart and write in 21.39 + 14.27  1  4  9  7  3  2  2  1  .  .  +  **9.** “Now that I have lined up my decimals, I can begin to add. Where do I start?”  (At the place farthest to the right, the hundredths place)  (10 second wait time)  **10.** Continue adding the numbers with the class. “Where do I put the decimal point in the answer?”  (It’s aligned with the decimal points in the other numbers)  (10 second wait time)  **11.** “I’m going to give you one to solve on your own now.” 4.85 + 21.3  **12.** Go over behavioral expectations for independent work time:   * Each student will be working on this problem on their own * This means there shouldn’t be any talking * If you have a question, raise your hand, and I will come to your seat to help you. * I really want you to try this on your own. It is ok if you don’t get the answer right, the idea is to practice adding decimals without my help. * You might have to make an educational guess.   **13.** Write 4.85 + 21.3 on white board.  **14.** “If I were going to solve this problem, how would I start? How would I set up my decimal place-value chart?”  (Line up the decimals)  (10 second wait time)  **15.** “What do I do about the hundredths place where 5 is over a blank?” (Add a zero)  (10 second wait time)  “Why would I do that?” (To hold place value)  (10 second wait time)  **16.** Allow time for students to solve problem.  \*\*(Choose several students to watch and take observational notes)  **Increase/Decrease Challenge: Make problem a 2-digit or 4+ digit problem.**  **17.** Possible questions or suggestions for those who are struggling:   * Make sure students have lined up their decimals and place values correctly. * Ask them, “If you were to add 10 + 2, you wouldn’t write it:”   + - 10   + 2\_\_\_   * “Cover all of the other place values except the one you are solving.” * “Think of it as solving a single-digit addition problem.”   4  1  5  8  3  2  .  .  +  **18.** For students who finish quickly, give extended activity (*Students can do exemplars additional activity or do “Problem of the Day” when finished with in class work*) – EXTENDED ACTIVITIES ATTACHED  **19.** “What answer did you get?”  (Call on several student volunteers to share their answers.)  (Ask several student volunteers to share how they thought to solve the problem. What was their thinking process?)  ANTICIPATED CORRECT AND INCORRECT SOLUTIONS ATTACHED.  *FOCUS, ASSESS, AND ADVANCE STUDENT THINKING*  *Whole Group Discussion (Students will remain in their desks)*  If student response is correct:   * *Call on student #1, repeat student’s answer* * *If student’s answer was correct, ask for another student to add to student #1’s answer* * *Repeat student #2’s answer, ask others to apply reasoning* * *Ask students if they agree with student #1, #2, etc.*   If student response is incorrect:   * *If student #1’s answer is wrong, repeat student’s answer, ask “Is that what you mean?”* * *Call on student #2, ask “Do you agree or disagree with student #1? Explain why.”* * *Repeat student #2’s answer, ask others to apply reasoning* * *Ask students if they agree with student #1, #2, etc.* * *Conclude whole group discussion by restating the final (correct) explanation*   **20.** Give students two more adding decimal problems to work on independently.  **21.** Re-go over behavioral expectations for independent work time:   * Each student will be working on this problem on their own * This means there shouldn’t be any talking * If you have a question, raise your hand, and I will come to your seat to help you. * I really want you to try this on your own. It is ok if you don’t get the answer right, the idea is to practice adding decimals without my help. * You might have to make an educational guess.   **22.** Write both problems on white board.  4.98 + 30.2  9.1 + 74.21  **23.** Allow students time to work on problems.  \*\*(Take more observational notes on selected students)  **Increase/Decrease Challenge: Make decimals either 2-digit or 4+ digits.**  **24.** Possible questions or suggestions for those who are struggling:   * Make sure students have lined up their decimals and place values correctly. * Ask them, “If you were to add 10 + 2, you wouldn’t write it:”   + - 10   + 2\_\_\_   * “Cover all of the other place values except the one you are solving.” * “Think of it as solving a single-digit addition problem.”   **25.** For students who finish quickly, give extended activity (*Students can do exemplars additional activity or do “Problem of the Day” when finished with in class work*) – EXTENDED ACTIVITIES ATTACHED  **26.** “What answer did you get?”  (Call on several student volunteers to share their answers.)  (Ask several student volunteers to share how they thought to solve the problem. What was their thinking process?)  ANTICIPATED CORRECT AND INCORRECT SOLUTIONS ATTACHED.  *FOCUS, ASSESS, AND ADVANCE STUDENT THINKING*  *Whole Group Discussion (Students will remain in their desks)*  If student response is correct:   * *Call on student #1, repeat student’s answer* * *If student’s answer was correct, ask for another student to add to student #1’s answer* * *Repeat student #2’s answer, ask others to apply reasoning* * *Ask students if they agree with student #1, #2, etc.*   If student response is incorrect:   * *If student #1’s answer is wrong, repeat student’s answer, ask “Is that what you mean?”* * *Call on student #2, ask “Do you agree or disagree with student #1? Explain why.”* * *Repeat student #2’s answer, ask others to apply reasoning* * *Ask students if they agree with student #1, #2, etc.* * *Conclude whole group discussion by restating the final (correct) explanation*   **(35-40 minutes)**  ***• Closing summary for the lesson*** *(How will I bring closure to the lesson and help children reflect on their experiences? How will I help them make connections to prior lessons or prepare for future experiences? What kind of feedback do I want from them at this time?)*  **1.** “I want to add to your math vocabulary cards. First thing to do when adding decimals”  **2.** Instruct students to get out their math vocabulary cards from math folder.  **3.** Write on white board: First thing to do when adding decimals  **4.** Ask students.  (Line up the decimals and place values)  (10 second wait time)  **5.** Write definition on white board.  **6.** Two student volunteers will distribute blank sheets of paper.  **7.** For the rest of the time, students will do pg.42 (9-25 odds) out of EnVision math book and turn it in at the end of class.  **Increase/Decrease Challenge: Reduce or add onto the number of problems students are required to complete in class.**  **8.** If time, check answers in class.  **9.** For students who finish quickly, give extended activity (*Students can do exemplars additional activity or do “Problem of the Day” when finished with in class work*) – EXTENDED ACTIVITIES ATTACHED  **10.** Re-go over behavioral expectations for independent work time:   * Each student will be working on this problem on their own * This means there shouldn’t be any talking * If you have a question, raise your hand, and I will come to your seat to help you. * I really want you to try this on your own. It is ok if you don’t get the answer right, the idea is to practice adding decimals without my help. * You might have to make an educational guess.   **11.** For homework, students will complete 2-6 Practice: Adding Decimals worksheet.  **12.** If students need more practice, distribute 2-6 Re-teaching worksheets that students may take home, they will not be graded.  **13.** Place homework assignments in front of room for students to grab when they exit the room.  **14.** Pull Exit Slip questions up on smart board.  **15.** Instruct students to pull Exit Slip out of math folder. Complete the questions and put the slip back into the folder.  **16.** Students should place into their math folder:   * Exit Slip * Math vocabulary cards * Decimal place-value charts * Pg.42 (9-25 odds)   **17.** Exit Slip questions:  1. Solve. 17.4 + 9.13  2. What is the first thing to do when adding decimals?  3. What did you learn today?  4. What are you still unsure about?  **(15-20 minutes)**  ***• Transition to next learning activity***  Students will be given a 3 minute break before gathering their materials to go home at the end of the day. | ***Academic, Social and Linguistic Support during each event***  *I will give my resource students, a copy of the problem posted on the smart board with the amounts and important information highlighted.*  *Enforcing a 10 second wait time will give all students more time to think. Particularly my resource students, who need more time to better organize their thoughts.*  *I will move back and forth in front of the room to ensure that my resource students are filling out their charts correctly. I will also supply an answer key to resource students to check their answers and better follow along in the lesson.*  *I will write student answers on the white board to give students a visual of the students solution and reasoning.*  *All responses and explanations will be accepted and not corrected by the teacher. The focus will be on students thinking and reasoning and not on their actual answer. This will help students feel comfortable to take intellectual risks in the classroom.*  *Directions will be written on the white board. I will also visit my resource students first to verbally reiterate the task they are expected to do and directions. Students are therefore given directions in two different ways – visually and verbally.*  *I will supply another answer key to resource students to check their answers and better follow along in the lesson.*  *During the independent work time, I will make sure to check in and confer with my resource students who need extra support.*  *All responses and explanations will be accepted and not corrected by the teacher. The focus will be on students thinking and reasoning and not on their actual answer. This will help students feel comfortable to take intellectual risks in the classroom.*  *Math vocabulary cards are a good study tool that each student can take home and practice with. If necessary, I can supply my students with pre-made vocabulary cards for each lesson.*  *Directions will be written on the white board. I will also visit my resource students first to verbally reiterate the task they are expected to do and directions. Students are therefore given directions in two different ways – visually and verbally.*  *I will supply another answer key to resource students to check their answers and better follow along in the lesson.*  *During the independent work time, I will make sure to check in and confer with my resource students who need extra support.*  *2-6 Re-teaching worksheet is provided to any student, including resource students who feel they need extra help or guidance with their homework at home.*  *2-6 Re-teaching builds on the lessons main concepts and guides the student into more complex problems that are on the 2-6 Practice worksheet.*  *I will provide my resource students with pre-made exit questions. Another option would be to have the student verbally answer each question and their reasoning while I take notes on their exit slip. The tasks of thinking and writing and reasoning can sometimes be too overwhelming for my resource students.* |
| ***Assessment*** *(How will I gauge the students’ learning as I implement the lesson plan and once the lesson is completed? Specifically, what will I look for? How will I use what I am learning to inform my next steps)*   * Decimal place-value charts   *I will look to see how each student solved the adding decimals problems.*  *For those who are struggling, I will ask several guiding questions:*  *Which solution strategy did they use?*  *Are they aligning their decimals and place values correctly?*  *Are they adding? And if so, adding correctly?*   * Teacher observational notes   *I will re-read my observational notes taken during the lesson. I will look to see if the selected students are participating in class discussions, using reasoning to explain their answers, using correct solution strategies to solve problems. And if not, I will come up with several individual strategies to help these selected students. Strategies may include extra support provided to resource students.*   * 2-6 Practice: Adding Decimals worksheet   *I will look for specific correct and incorrect solution strategies the students make in their homework, along with any misconceptions I find among most of the student work.*  *I will address these solution strategies and misconceptions prior to and in differentiated instruction in the next lesson.*   * 2-6 Re-teaching: Adding Decimals worksheet   *Re-teaching worksheets are done only if students feel it necessary to do them, along with resource students.*  *I will look for specific correct and incorrect solution strategies the students make in their homework, along with any misconceptions I find among most of the student work.*  *I will address these solution strategies and misconceptions prior to and in differentiated instruction in the next lesson.*   * Exit Slips   *Exit Slips will address a mathematical problem, vocabulary concept, and then asks students to share what they learned and what they still are unsure of.*  *I will look for specific solution strategies and misconceptions to address in differentiated instruction, along with what my students are still unsure about.*  *ALL OF THE FORMATIVE ASSESSMENTS WILL HELP ME ASSESS MY TEACHING STRATEGIES AND PLAN THE FUTURE DAYS OF MY UNIT TO ADDRESS MY STUDENTS MISCONCEPTIONS.* | ***Academic, Social, and Linguistic Support during assessment***  *Resource students will be given both 2-6 Re-teaching and 2-6 Practice worksheets. Students may only be graded on Re-teaching sheet or only on selected problems from Practice worksheet.* |

**Anticipated Correct and Incorrect Student Solutions**

**DISCUSSION LESSON**

**4.85 + 21.3**

|  |  |  |  |
| --- | --- | --- | --- |
| **Align decimals and place values correctly, add correctly**  4.85  + 21.3\_\_\_  26.15  *(Students would show aligning the decimals and place values and carrying the ten to 4 to add the decimals correctly)* | **Align decimals and place values incorrectly**  4 .8 5  + 2 1.3\_\_\_  6 9 8  *(Students would include correct numbers, but align decimals incorrectly)* | **Align decimals and place values correctly, use subtraction incorrectly**  21.3  - 4.85\_\_\_  16.45  *(Students would align decimals but use subtraction instead of addition)* | **Align decimals and place values incorrectly, use subtraction incorrectly**  4. 8 5  - 2 1. 3\_\_\_  2 7 2  *(Student would include correct numbers, but align decimals incorrectly, and use subtraction instead of addition)* |

**4.98 + 30.2**

|  |  |  |  |
| --- | --- | --- | --- |
| **Align decimals and place values correctly, add correctly**  4.98  + 30.2\_\_\_    *(Students would show aligning the decimals and place values and carrying the ten to 4 to add the decimals correctly)* | **Align decimals and place values incorrectly**  4 .9 8  + 3 0.2\_\_\_  *(Students would include correct numbers, but align decimals incorrectly)* | **Align decimals and place values correctly, use subtraction incorrectly**  30.2  - 4.98\_\_\_  *(Students would align decimals but use subtraction instead of addition)* | **Align decimals and place values incorrectly, use subtraction incorrectly**  4. 9 8  - 3 0. 2\_\_\_  *(Student would include correct numbers, but align decimals incorrectly, and use subtraction instead of addition)* |

**9.1 + 74.21**

|  |  |  |  |
| --- | --- | --- | --- |
| **Align decimals and place values correctly, add correctly**  9.1  + 74.21\_\_\_  83.31  *(Students would show aligning the decimals and place values and carrying the ten to 4 to add the decimals correctly)* | **Align decimals and place values incorrectly**  9 .1  + 7 4.2 1\_\_  7 5 1 2  *(Students would include correct numbers, but align decimals incorrectly)* | **Align decimals and place values correctly, use subtraction incorrectly**  74.21  - 9.1\_\_\_  65.11  *(Students would align decimals but use subtraction instead of addition)* | **Align decimals and place values incorrectly, use subtraction incorrectly**  7 4 . 2 1  - 9.1  7 3 3 0  *(Student would include correct numbers, but align decimals incorrectly, and use subtraction instead of addition)* |

The order in which I would have students present their strategies:

1. Align decimals and place values incorrectly, use subtraction incorrectly

2. Align decimals and place values incorrectly

3. Align decimals and place values correctly, use subtraction incorrectly

4. Align decimals and place values correctly, add correctly

Aligning the decimals and place values correctly and adding correctly demonstrates that students understand that in order to add decimals the place values must be in line and were also able to add the decimals carrying the tens, similar to whole number addition. This particular strategy reflects the learning objective best: (In order to add a multi-digit decimal problem correctly, it is essential that you line up the decimals).

|  |  |
| --- | --- |
| ***Lesson Plan***  Lesson 2-6: Adding Decimals (Differentiated Instruction)  GROUP WORK LESSON  ***Name of Teacher:*** Taylor Raymond  ***School:*** Leslie Middle School  ***Grade level:*** 5th Grade  ***CT:*** Jean Maiville  ***Date:*** Mondday, November 2 (Unit Plan-Day 6) 1:45pm – 2:40pm  ***Objectives for today’s lesson:***  Objective for Lesson 2-6:   * Students compute sums of decimals involving tenths, hundredths, and thousandths.   GLCE’s covered in Lesson 2-6:  **N.MR.04.31** For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.  **N.FL.04.32** Add and subtract decimals through hundredths.  ***Big Ideas:***  Big Ideas for Lesson 2-6:   * Adding or subtracting multi-digit decimals is similar to adding or subtracting whole numbers. * In order to add a multi-digit decimal problem correctly, it is essential that you line up the decimals.   ***NCTM Process Goals:***  Representation:   * Create and use representations to organize, record, and communicate mathematical ideas   Problem Solving:   * Apply and adapt a variety of appropriate strategies to solve problems   ***Materials & supplies needed:***   * Math folder * Decimal place-value chart * White board/Smart board * Teacher observational notes * Exit slips | |
| ***Procedures and approximate time allocated for each event***  *•* ***Introduction to the lesson (****What will I say to help children understand the purpose of the lesson? How will I help them make connections to prior lessons or experiences? How will I motivate them to become engaged in the lesson?)*  **1.** Two student volunteers will help distribute math folders, decimal place-value charts will be in math folders.  **2.** “Let’s review adding decimals from Friday’s lesson.”  **3.** “We talked about the first thing you do when adding decimals, what was that?  (I expect students to say line up the decimals)  (10 second wait time)  **4.** If students cannot remember, have them refer to their vocabulary cards to find the answer.  **5.** “Let’s do a problem on the board together using the decimal place-value charts in your math folders.”  **6.** Go over behavioral expectations for whole class discussion:   * You need to be following along on your place-value chart with mine on the board. * If you would like to answer a problem or add something, please raise your hand and wait to be called on.   **7.** Pull problem up on smart board.  **8.** Read problem: “Lucy went to a concert and bought a bunch of the bands t-shirts and CDs. She bought 4 CD’s for 51.24. Lucy then bought 2 t-shirts for 23.99, and an autographed picture for 7.31. How much did she spend total?”  4  9  1  2  9  3  1  3  7  5  2  .  .  .  +  **9.** “What are we going to do first when adding these decimal numbers?”  (Line the decimals up in the decimal place value chart)  (10 second wait time)  **10.** “Now that we have lined up the decimals and place values, where do we start to begin adding?”  (The farthest place to the right, the hundredths place)  (10 second wait time)  **11.** “I want you to finish solving the problem on your own.  **12.** Go over behavioral expectations for independent work time:   * Each student will be working on this problem on their own * This means there shouldn’t be any talking * If you have a question, raise your hand, and I will come to your seat to help you. * I really want you to try this on your own. It is ok if you don’t get the answer right, the idea is to practice adding decimals without my help. * You might have to make an educational guess.   **13.** Allow time for students to solve problem.  \*\*(Choose several students to watch and take observational notes)  **Increase/Decrease Challenge: Have students only add two items or increase the number of each item bought**  **14.** Possible questions or suggestions for those who are struggling:   * Make sure students have lined up their decimals and place values correctly. * Ask them, “If you were to add 10 + 2, you wouldn’t write it:”   + - 10   + 2\_\_\_   * “Cover all of the other place values except the one you are solving.” * “Think of it as solving a single-digit addition problem.”   **15.** For students who finish quickly, give extended activity (*Students can do exemplars additional activity or do “Problem of the Day” when finished with in class work*) – EXTENDED ACTIVITIES ATTACHED  **16.** “What answer did you get?”  (Call on several student volunteers to share their answers.)  (Ask several student volunteers to share how they thought to solve the problem. What was their thinking process?)  ANTICIPATED CORRECT AND INCORRECT SOLUTIONS ATTACHED.  *FOCUS, ASSESS, AND ADVANCE STUDENT THINKING*  *Whole Group Discussion (Students will remain in their desks)*  If student response is correct:   * *Call on student #1, repeat student’s answer* * *If student’s answer was correct, ask for another student to add to student #1’s answer* * *Repeat student #2’s answer, ask others to apply reasoning* * *Ask students if they agree with student #1, #2, etc.*   If student response is incorrect:   * *If student #1’s answer is wrong, repeat student’s answer, ask “Is that what you mean?”* * *Call on student #2, ask “Do you agree or disagree with student #1? Explain why.”* * *Repeat student #2’s answer, ask others to apply reasoning* * *Ask students if they agree with student #1, #2, etc.* * *Conclude whole group discussion by restating the final (correct) explanation*   **17.** “We are going to break up into our math centers. Each center will be playing a dice game with a partner.”  **18.** Go over behavioral expectations during Math Center work time:   * I will give directions for each group’s activity. * I would recommend you ask any questions you may have now because I will not be interrupted when working with group 1 on their activity. * I will be working with Group 1 at the front of the room. * If you are in groups 2 or 3, I will not be able to stop in the middle of my lesson with group 1 to answer questions. * If you have a question, ask your partner or other members in your group. * Once I am finished working with group 1, I will let the class know as a whole and then you are welcome to ask questions. * I expect you to be working with your partner quietly and to stay on task. * Everyone should participate. * You should listen respectively to each others ideas and be encouraging to one another. * If you are disruptive or negative, you will leave your partner and the group and will be given an individual assignment to work on.   **19.** Pull up student center groups on smart board, and assigned partners.  **20.** “*Math center 1* will be playing Adding Decimals Tic-Tac-Toe and will meet at the front of the room. I will give you your directions when you meet me at the front.”  **21.** “*Math center 2* will be playing Clip and Cover and will meet on the left side of the room.” Rules of the game:   * You will get with a partner that I assign and roll the dice to see who goes first, the higher number wins. * The first person will roll each dice. The first dice will be the number they pick on the left. The second dice will be the number they pick on the right. Put a paperclip on each number you chose. You must add those two decimals together. * You get one try; if they get an answer and it is on the board, X it off with your color marker, than your partner goes. If you get an answer that isn’t on the board, their turn is over. * Whoever gets the first tic-tac-toe either vertically, horizontally or diagonally wins. * Once you have finished playing, turn the sheet over and play again.   “The directions are also written at the top of your clip and cover paper.”  **22.** “*Math center 3* will be playing Clip and Cover and will meet in the right side of the room.” Rules of the game:   * You will get with the partner I assign and roll the dice to see who goes first, the higher number wins. The first person will roll the one dice. * Choose that number circle on either the left or right. Example: If you roll a 3, choose the 3rd circle on the right or the 3rd circle on the left. Put a paperclip on the number you chose. The number you chose is a sum. * Find the box with the two numbers that you can add to get that sum. * You get one try; if they get an answer and it is on the board, X it off with your color marker, than your partner goes. If you get an answer that isn’t on the board, their turn is over. * Whoever gets the first tic-tac-toe either vertically, horizontally or diagonally wins. * Once you have finished playing, turn the sheet over and play again.   “The directions are also written at the top of your clip and cover paper.”  **23.** Students are shown which desk will hold their game sheets and game materials.  **24.** Write group 2 and group 3 materials needed on white board to assist students when collecting materials.  **25.** Students are instructed to move to their math center area and begin.  **(20 minutes)**  *•* ***OUTLINE of key events******during the lesson*** *(Include specific details about how I will begin and end activities; what discussion questions I will use; how I will help children understand behavior expectations during the lesson; when/how I will distribute supplies and materials)*  INTERVENTION (Teacher-guided):  *Materials Used:*   * Adding Decimals Tic-Tac-Toe * 2 dice * 2 different colored markers   *Outline of Activity:*   1. Restate behavioral expectations during Math Center work time for group 1:    * “We will be working on a math activity relating to adding decimals.”    * “You will find a partner to work with and then I will give you the directions for the activity.”    * Review game rules:      1. You will get with a partner and roll the dice to see who goes first, the higher number wins.      2. The first person will roll each dice. The first dice will be the number they pick on the left. The second dice will be the number they pick on the right. You must add those two decimals together.      3. You get one try; if they get an answer and it is on the board, X it off with your color marker, than your partner goes. If you get an answer that isn’t on the board, their turn is over.      4. Whoever gets the first tic-tac-toe either vertically, horizontally or diagonally wins.      5. Once you have finished playing, turn the sheet over and play again.      + “I will be working with each partner group to help them with the activity.”      + If you have a question, raise your hand, and I will come to your seat to help you.      + I really want you to try this on your own. It is ok if you don’t get the answer right, the idea is to practice adding decimals without my help.      + You might have to make an educational guess.   **2.** \*\*(Choose several students to watch and take observational notes)  Observe strategies students are choosing to use to add the decimals  **3.** As students are working with partners on their game, I will answer group 1’s questions, and monitor group behavior.  ON-LEVEL (Partner work):  *Materials Used:*   * Clip and Cover board sheet * 2 dice * 2 different colored markers * 2 paperclips   *Outline of Activity:*   1. Students will find a partner and collect game materials. 2. Students will begin game by following directions on clip and cover sheet. 3. Once I have given them permission, I will be able to answer any questions the students may have.    * \*\*(Choose several students to watch and take observational notes)    * Observe strategies students are choosing to use to add the decimals.    * Monitor group behavior and dynamics.   ADVANCED (Partner work):  *Materials Used:*   * Clip and Cover board sheet * Dice * 2 different colored markers * Paperclip   *Outline of Activity:*   1. Students will find a partner and collect game materials. 2. Students will begin game by following directions on clip and cover sheet. 3. Once I have given them permission, I will be able to answer any questions the students may have.    * \*\*(Choose several students to watch and take observational notes)    * Observe strategies students are choosing to use to add the decimals.    * Monitor group behavior and dynamics.   **(20-30 minutes)**  ***• Closing summary for the lesson*** *(How will I bring closure to the lesson and help children reflect on their experiences? How will I help them make connections to prior lessons or prepare for future experiences? What kind of feedback do I want from them at this time?)*  **1.** Students can do exemplars additional activity or do “Problem of the Day” when finished with in class work.  **2.** Instruct students to return all game materials and return to their desks.  **3.** Pull Exit Slip questions up on smart board.  **4.** Instruct students to pull Exit Slip out of math folder. Complete the questions and put the slip back into the folder.  **5.** Students should place into their math folder:   * Decimal place-value chart * Game sheet * Exit Slip   **6.** Exit Slip questions:   1. Did you learn anything new from today’s activities? 2. What are you still unsure about?   **(3-5 minutes)**  ***• Transition to next learning activity***  Students will be given a 3 minute break before gathering their materials to go home at the end of the day. | ***Academic, Social and Linguistic Support during each event***  *Enforcing a 10 second wait time will give all students more time to think. Particularly my resource students, who need more time to better organize their thoughts.*  *I will give my resource students, a copy of the problem posted on the smart board with the amounts and important information highlighted.*  *I will move back and forth in front of the room to ensure that my resource students are filling out their charts correctly. I will also supply an answer key to resource students to check their answers and better follow along in the lesson.*  *Directions will be written on the white board. I will also visit my resource students first to verbally reiterate the task they are expected to do and directions. Students are therefore given directions in two different ways – visually and verbally.*  *I will supply another answer key to resource students to check their answers and better follow along in the lesson.*  *During the independent work time, I will make sure to check in and confer with my resource students who need extra support.*  *All responses and explanations will be accepted and not corrected by the teacher. The focus will be on students thinking and reasoning and not on their actual answer. This will help students feel comfortable to take intellectual risks in the classroom.*  *All resource students will be placed in group 1 to work with the teacher-guided center.*  *Groups were chosen based on “multiple” abilities, relationships, and social needs.*  *Directions will be written on the white board. I will also restate the behavioral expectations once instructing group 1 to verbally reiterate the task they are expected to do and directions. Students are therefore given directions in two different ways – visually and verbally.*  *I will supply an answer key of the Tic-Tac-Toe sheet to give to resource students to check their answers and better follow along in the activity.*  *During the math center work time, I will make sure to check in and confer with my resource students who need extra support.*  *During the math center work time, I will make sure to check in and confer with my resource students who need extra support.*  *During the math center work time, I will make sure to check in and confer with my resource students who need extra support.*  *I will provide my resource students with pre-made exit questions. Another option would be to have the student verbally answer each question and their reasoning while I take notes on their exit slip. The tasks of thinking and writing and reasoning can sometimes be too overwhelming for my resource students.* |
| ***Assessment*** *(How will I gauge the students’ learning as I implement the lesson plan and once the lesson is completed? Specifically, what will I look for? How will I use what I am learning to inform my next steps)*   * + Teacher observational notes   *I will re-read my observational notes taken during the lesson. I will look to see if the selected students are participating in class discussions, using reasoning to explain their answers, using correct solution strategies to solve problems. And if not, I will come up with several individual strategies to help these selected students. Strategies may include extra support provided to resource students.*   * + Exit slips   *Exit Slips will address a mathematical problem, vocabulary concept, and then asks students to share what they learned and what they still are unsure of.*  *I will look for specific solution strategies and misconceptions to address in differentiated instruction, along with what my students are still unsure about.*   * + Intervention: Adding Decimals Tic-Tac-Toe sheet   *I will look to see how each student solved the adding decimals problems.*  *For those who are struggling, I will ask several guiding questions:*  *Which solution strategy did they use?*  *Are they aligning their decimals and place values correctly?*  *Are they adding? And if so, adding correctly?*   * + On-Level: Clip and Cover board sheet   *I will look to see how each student solved the adding decimals problems.*  *For those who are struggling, I will ask several guiding questions:*  *Which solution strategy did they use?*  *Are they aligning their decimals and place values correctly?*  *Are they adding? And if so, adding correctly?*   * Advanced: Clip and Cover board sheet   *I will look to see how each student solved the adding decimals problems.*  *For those who are struggling, I will ask several guiding questions:*  *Which solution strategy did they use?*  *Are they aligning their decimals and place values correctly?*  *Are they adding? And if so, adding correctly?*  *ALL OF THE FORMATIVE ASSESSMENTS WILL HELP ME ASSESS MY TEACHING STRATEGIES AND PLAN THE FUTURE DAYS OF MY UNIT TO ADDRESS MY STUDENTS MISCONCEPTIONS.* | ***Academic, Social, and Linguistic Support during assessment***  *Resource students will be assessed on effort and participation for their math center grade.*  *Tic-Tac-Toe sheet and Observational notes will be used to assess students misconceptions and future necessary support.* |

Strategies used for equitable participation in groups:

*Establish behavioral expectations when introducing Math Center activities:*

* I will give directions for each group’s activity.
* I would recommend you ask any questions you may have now because I will not be interrupted when working with group 1 on their activity.
* I will be working with Group 1 at the front of the room.
* If you are in groups 2 or 3, I will not be able to stop in the middle of my lesson with group 1 to answer questions.
* If you have a question, ask your partner or other members in your group.
* Once I am finished working with group 1, I will let the class know as a whole and then you are welcome to ask questions.
* I expect you to be working with your partner quietly and to stay on task.
* Everyone should participate.
* You should listen respectively to each others ideas and be encouraging to one another.
* If you are disruptive or negative, you will leave your partner and the group and will be given an individual assignment to work on.

*Establish behavioral expectations when introducing Group 1 Math Center activity:*

* + “We will be working on a math activity relating to adding decimals.”
  + “You will find a partner to work with and then I will give you the directions for the activity.”
  + Review game rules:
    1. You will get with a partner and roll the dice to see who goes first, the higher number wins.
    2. The first person will roll each dice. The first dice will be the number they pick on the left. The second dice will be the number they pick on the right. You must add those two decimals together.
    3. You get one try; if they get an answer and it is on the board, X it off with your color marker, than your partner goes. If you get an answer that isn’t on the board, their turn is over.
    4. Whoever gets the first tic-tac-toe either vertically, horizontally or diagonally wins.
    5. Once you have finished playing, turn the sheet over and play again.
    - “I will be working with each partner group to help them with the activity.”
    - If you have a question, raise your hand, and I will come to your seat to help you.
    - I really want you to try this on your own. It is ok if you don’t get the answer right, the idea is to practice adding decimals without my help.
    - You might have to make an educational guess.

Strategy used to create groups and partners for math centers:

* *All resource students will be placed in group 1 to work with the teacher-guided center.*
* *Group 1 is designated the “Intervention” group. Formative assessments have assisted me in deciding which students are below grade-level and in need of an intervention.*
* *Group 2 is designated the “On-Level” group. Formative assessments have assisted me in deciding which students are on grade-level with the big ideas and objectives of 2-6.*
* *Group 3 is designated the “Advanced” group. Formative assessments have assisted me in deciding which students are above grade-level with the objectives of 2-6. Higher level tasks will be provided in math centers for students who are advanced.*
* *Partners in each group were chosen based on “multiple” abilities, relationships, and social needs.*

**Anticipated Correct and Incorrect Student Solutions**

**GROUP WORK LESSON**

**51.24 + 23.99 + 7.31 =**

|  |  |  |  |
| --- | --- | --- | --- |
| **Align decimals and place values correctly, add correctly**  51.24  23.99  + 7.31  *(Students would show aligning the decimals and place values and carrying the ten to 4 to add the decimals correctly)* | **Align decimals and place values incorrectly**  5 1.2 4  2 3.9 9  + 7.3 1\_\_\_  *(Students would include correct numbers, but align decimals incorrectly)* | **Align decimals and place values correctly, use subtraction incorrectly**  51.24  23.99  - 7.31\_\_  *(Students would align decimals but use subtraction instead of addition)* | **Align decimals and place values incorrectly, use subtraction incorrectly**  5 1.2 4  2 3.9 9  - 7.3 1\_\_\_  *(Student would include correct numbers, but align decimals incorrectly, and use subtraction instead of addition)* |

The order in which I would have students present their strategies:

1. Align decimals and place values incorrectly, use subtraction incorrectly

2. Align decimals and place values incorrectly

3. Align decimals and place values correctly, use subtraction incorrectly

4. Align decimals and place values correctly, add correctly

Aligning the decimals and place values correctly and adding correctly demonstrates that students understand that in order to add decimals the place values must be in line and were also able to add the decimals carrying the tens, similar to whole number addition. This particular strategy reflects the learning objective best: (In order to add a multi-digit decimal problem correctly, it is essential that you line up the decimals).

***Section 6. Parent Involvement and Communication***

A weekly newsletter has been distributed every Friday. The newsletter recaps what was done in each class for the week (Study Skills, Related Arts, Reading, Science, Math, Social Studies, and Language Arts). This will be a good tool for me to use to communicate with parents on upcoming assignments, quizzes, and tests in my math unit. It is often a requirement that parents sign the newsletter and return it with their student for math bonus points. This pushes students to bring the newsletter home to their parents and encourages parents to keep up-to-date on weekly activities in the classroom.

A copy of last week’s newsletter:

5th Grade Newsletter

**MATH**

**STUDY SKILLS**

In math, we continued

in our Unit 1work. We

worked with decimal

place value and on Friday began

Lesson 1-4 Comparing and Ordering Decimals.

Friday homework: Practice 1-4 Worksheet and Re-teach

MATH TEST NEXT WEEK:

Maiville Test Date: Wednesday, 10/21

Corts Test Date: Thursday, 10/22

October 16, 2009

In Mrs. Maiville and Ms. Raymond’s room, we prepared for the MEAP on Tuesday and Thursday and did two creative writing activities.

In Mr. Corts and Mr. Kay’s room, we continued to write in our journals.

**SCIENCE**

This week in science, we continued our speed lab outside and in our science lab. We shared our speed calculations in class and discussed motion.

Parents – for extra vocabulary practice at home, ask your student to define:

* Speed
* Motion
* Change of Speed
* Relative Position

In language arts this week students completed their 5th unit! Everyone seems to be getting the spelling schedule down now and most everyone is doing great on the tests. Students also learned about common nouns, proper nouns and plural words.

This week was also a little unusual because of the MEAP schedule.

**RELATED ARTS**

Related arts was a little different for students this week. Each class had an opportunity to go to the computer lab and work on their typing skills. Everyone did a great job in the computer lab! We will begin working on our Study Island program very soon. We did not cover our usual current event section this week, but once students become more comfortable using the school computers we will continue writing about current events.

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**LANGUAGE**

**ARTS**

**UPCOMING EVENTS**

* MEAP testing next week 10/20 and 10/22
* Mrs. Maiville & Ms. Raymond Scholastic book orders due 10/26
* Mr. Corts & Mr. Kay’s

Student of the Week:

Amy Gordon

In social studies this week we continued to watch a video on the Woolly Mammoth we started a few weeks ago. Students also reviewed Chapter One and are beginning to prepare for their first chapter test. This week was unusual for us because of the MEAP testing, but after next week everything will be back to our normal routine!