

WEST CHESTER UNIVERSITY LESSON PLAN TEMPLATE	
Lesson Day	Tuesday 9/24 Subtract mixed numbers
How will this lesson support the learning goal? (1c: Setting Instructional Outcomes)	This lesson will help students learn how to subtract mixed numbers.
PA Standards and Other Appropriate Professional Standards (1c: Setting Instructional Outcomes) http://www.pdesas.org/Standard/view or https://www.pdesas.org/Page?pagelid=11 <i>List the Pennsylvania Standard(s) relevant for this lesson</i>	Standards: CC.2.1.5.C.1: Use the understanding of equivalency to add and subtract fractions.

<p style="text-align: center;">ISTE (Technology) Standards (IF APPROPRIATE)</p> <p style="text-align: center;">(1c: Setting Instructional Outcomes)</p> <p style="text-align: center;">www.iste.org / ISTE Standards for Educators</p> <p><i>When addressing this section, you should include the standard number and the sub-component (e.g., 3a, 4a-c, etc.). Also, explain how the unit or lesson explicitly incorporates at least one standard (standard 3-7 only). Describe where in the learning plan there will be evidence that the standard selected will be integrated into the learning experience.</i></p>	
<p style="text-align: center;">Objective(s)</p> <p style="text-align: center;">(1c: Setting Instructional Outcomes)</p> <p><i>Taking into consideration the learning goal, what is the objective(s)</i></p> <p><i>of this lesson</i> that will support the progress toward the learning goal?</p> <p><i>The statement should be directly observable (use verbs that can be measured).</i></p>	<p>1. When given two mixed numbers, the student will be able to accurately subtract mixed numbers.</p>

Academic Language

(1a: Demonstrating Knowledge of Content and Pedagogy)

*What language will students be expected to utilize by the end of the lesson?
Consider Language function and language demands (see Lesson Plan User Guide).*

What key terms are essential?

What key terms are essential to develop and extend students' academic language?

What opportunities will you provide for students to practice the new language and develop fluency, both written and oral?

1. Mixed numbers
2. Improper fraction
3. Simplifying
4. Regrouping

Materials/Resources

(1d: Demonstrating Knowledge of Resources)

What texts, digital resources, & materials will be used in this lesson? How do the materials align with the learning objectives/outcomes? If appropriate, what educational technology will be used to support the learning outcomes of this lesson? How do the resources support the learning objectives?

Cite publications and any web resources.

1. Smartboard
2. Sticky notes
3. Fraction riddles
4. Homework book page 8
5. Chromebooks
6. Teacher math yellow book

Anticipatory Set

(1a: Demonstrating Knowledge of Content and Pedagogy)

_____ minutes

How will you set the purpose and help students learn why today's lesson is important to them as learners?

How will you pique the interest or curiosity regarding the lesson topic?

How will you build on students' prior knowledge?

How will you introduce and explain the strategy/concept or skill?

Provide detailed steps

1. The teacher will use money to introduce subtraction of mixed numbers.
2. "I have 5 dollars and 50 cents."
3. "I want to give my twin sister 2 dollars and 75 cents."
4. "How much will I have left for myself after sharing with my sister."
5. "Use your math notebook to find my amount. Work independently, you have 2 minutes."
6. The teacher will walk around the classroom, notating what students are doing.

Instructional Activities

(1a: Demonstrating Knowledge of Content and Pedagogy;

1e: Designing Coherent Instruction)

Exploration (Model): How will students explore the new concepts? How will you model or provide explicit instruction?

Guided Practice: How will you provide support to students as they apply the new concept? How will you allow them to practice (with teacher support)?

Independent practice: How will students review and solidify these concepts to be able to use this new knowledge? How will you monitor and provide feedback?

Provide detailed steps.

1. "Let's discuss my money situation. Turn and talk with the person next to you. How much will I have left?"
2. The teacher will give students time to talk to each other.
3. After 3 minutes the teacher will ask the students to regroup.
4. "What did you guys do to solve my money problems?"
5. The teacher will write down all the methods students used.
6. "Now can we solve the same problem using mixed number?"
7. "When setting your problem, think of how many quarters are in a dollar for your fractions."
8. "Take a minute or two and set up your problem."
9. "Remember I have 5 dollars and 50 cents. I want to give my twin sister 2 dollars and 75 cents. Try your best!"
10. "Pencils down, stand up. I would like you to go talk to someone else about the way you've set up the problem using mixed numbers. Use accountable talk. I wonder? I agree because.."
11. The teacher will join the students as they speak to their peers, asking them questions. Why did you use this fraction? Why did you choose to do such an operation?
12. "Simon says Freeze. Simon says return to your seats."
13. "What is my problem for my money situation, using mixed numbers?"
14. The teacher is hoping the students say $5\frac{1}{2} - 2\frac{3}{4}$.
15. "Let's subtract our mixed numbers. Ms Menoken showed you a math

antics video yesterday teaching you how to subtract mixed numbers.”

16. “Walk me to the steps. Remember if you aren’t sure, phone a friend for help.”
17. The teacher will call random students to help her subtract mixed numbers.
18. The answer to the problem should be $2\frac{3}{4}$.
19. “This is the time to start asking questions before we go into our rotations. Who has a question on what we’ve done? Your question may help someone else so please don’t be shy and feel comfortable to ask.”
20. The teacher will allow time for questions. After questions are asked, the students will go into rotations.
21. “Money is one way we experience mixed numbers in real life.”
22. “ We will begin our rotations shortly. My materials people, I’ll need you to get 6 computers for me from Ms Banks room.”
23. “The rest of you, take out your homework book, the blue math book.”
24. The teacher will give students time to get their homework book while she gets sticky notes for the students for small group instruction
25. The teacher will have students count to 4, making it easier to transition students.
26. Rotations consist of 4 sections, which every student will get a chance to do.

27. "We will be going to our rotations. Listen carefully to where you are going based on your number."

28. Rotations

- 1. Small group instruction with the teacher subtracting mixed numbers.
- 2. Independent work will be on page 8 in your homework book
- 3. Enrichment is fraction riddles
- 4. Computer people should be on sheppardsoftware working on fractions only.

29. "Take all your things with you and please go to your section. We will rotate again whenever I blow the whistle."

30. The students will rotate after every 7 minutes.

Closure

(1e: Designing Coherent Instruction)

___ minutes

How will students share or show what they have learned in this lesson?

How will you restate the teaching point and clarify key concepts?

How will you provide opportunities to extend ideas and check for understanding?

How will this lesson leads to the next lesson?

1. The students will choose two mixed numbers of their own and will subtract them.
2. "I want you to choose two mixed numbers of your choice and subtract them on the sticky note on your desk."
3. " I want you to stick your sticky note on the wall , put your name on the back."
4. "Once everyone is done, we will do a gallery walk, where we walk around looking and analyzing our friends sticky notes."
5. "You may begin your work of art, solving a problem of your choice."
6. The teacher will give students 5 minutes to solve their problems.
7. "Time is up, time to gallery walk. Stand up everyone and put your sticky note on the wall."
8. "When I say Gallery, you say Walk. Gallery! Walk! Walk please!"
9. Students will move around the classroom, participating in the gallery walk.
10. "Gallery walks help you see how your peers are solving or doing the same math, differently. Return to your seats please."
11. "If you didn't finish page 8, please complete it for homework."

Differentiation

(1e: Designing Coherent Instruction)

What differentiated support will you provide for students whose academic development is below or above the current grade level?

What specific differentiation of content, process, products, and/or learning environment do you plan to employ to meet the needs of all of your students?

How does your lesson support student differences with regard to linguistic, academic, and cultural diversity?

How will your lesson actively build upon the resources that linguistically and culturally diverse students bring to the experience?

How will your lesson will be supportive for all students, including English Language Learners, and build upon the linguistic, cultural, and experiential resources that they bring to their learning?

How will your lesson is designed to promote creative and critical thinking and inventiveness?

1. Technology is being used during the lesson.
2. ESOL/ELL students will receive extra support, as well as the students with an IEP.

<p style="text-align: center;">Accommodations</p> <p style="text-align: center;">(1e: Designing Coherent Instruction)</p> <p><i>What classroom accommodations do you plan to employ to increase curriculum access for students identified with special education needs or 504?</i></p> <p><i>Describe how these accommodations align with the current Individualized Education Plan (IEP) for each student as applicable (avoid using actual names of students).</i></p>	<p>Accommodations will be for the students who are ELL and ESOL, as well for a student that is a selective mute and a student with a learning disability that requires an IEP.</p> <ol style="list-style-type: none"> 1. Spanish speaking students may sit together to help each other. 2. The student who is selective mute seats in the front, closer to the teacher.
<p style="text-align: center;">Modifications</p> <p style="text-align: center;">(1e: Designing Coherent Instruction)</p> <p><i>What curricular modifications and/or changes in performance standards, if any, do you plan to employ to facilitate the participation of students identified with special education needs?</i></p>	<p>Modifications will be for the students who are ELL and ESOL, as well as for a student that is a selective mute and a student with a learning disability that requires an IEP.</p> <ol style="list-style-type: none"> 1. Students may complete work with a partner or a group. 2. Students don't have to complete the entire activities but will just need to attempt some of them. 3. Answers to questions can be written down and not given orally. 4. Students may use tools like the multiplication charts to assist them.

<p>Assessment (Formal or Informal).</p> <p>(1f: Assessing Student Learning)</p> <p><i>How will you and the students assess where the learning objectives, listed above, were met?</i></p> <p><i>Each formal or informal assessment should describe how it is aligned to the above objective(s).</i></p>	<ol style="list-style-type: none">1. Homework book page 82. Fraction riddles3. Classroom discussions4. Small group instruction

<p style="text-align: center;">Reflection on Instruction</p> <p><i>What evidence did you collect to demonstrate that your students have met or are progressing towards the learning outcome?</i></p> <p><i>What changes or adjustments had to be made during the lesson (justify those changes) to ensure students make adequate progress in meeting the learning objective?</i></p> <p><i>What changes will have to be made to the next lesson in order for students to be on pace in meeting the overall goal of the Lesson or Unit?</i></p> <p><i>Taking good notes about each lesson will help as you develop a formal reflective narrative at the end of the SLO.</i></p>	<p>This will be done after instruction.</p>
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