Lesson Overview

Topic	Lesson Information
Lesson Title:	Percent – Introduction and Solving for Missing Part, Whole, and Percent
Lesson Author:	Carolyn McClinton
Date Created:	4/20/22
Lesson Timeframe:	2.5 hours
Content Area(s):	Math
General Topics/Skills Covered:	Introduction to percent, solving for missing part, whole and percent.
NRS Level(s):	Level 4
Prerequisite Skills:	Prior knowledge of fractions and decimals, how to reduce fractions and work with base 10 fractions, identify decimal place value.

Standards and Skills Addressed

Topic	Your Standards and Skills Addressed
College and Career Readiness Standards (CCRS):	Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.* 4.NF.6 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. 6.RP.1 Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent. 6.RP.3c
English Language Proficiency Standards (ELPS (if applicable):	N/A
Target Grammar/Language Forms (for ESL):	N/A
Standards for Mathematical Practice:	Reason abstractly and quantitatively. Attend to precision. Look for and express regularity in repeated reasoning.
Foundation Skills Framework (Workforce Skills):	Applies mathematical operations, concepts, and reasoning.
Digital Literacy Skills (also see checklist below):	Skills practiced: - Navigating within a particular website - Clicking on links to access documents and videos - Answering questions digitally

Topic	Your Standards and Skills Addressed
Digital Literacy Skills Checklist:	☐ Are students taught how to find--and evaluate the validity of--online sources? Are they given an opportunity to practice doing so with different topics and for different tasks? ☐ Are sufficient instructions given to students around the use of digital tools and is sufficient time provided to practice the use of tools? ☐ Do students use digital tools to create and present products (e.g., papers, presentations, graphics)? ☐ Are students provided with an opportunity to select and use appropriate technology to solve problems in class?

Objectives, Materials, Vocabulary, and Culturally Responsive Teaching

Topic	Your Objectives, Materials, Vocabulary, and Culturally Responsive Teaching
Lesson Objective(s):	By the end of the session, the student should be able to complete four sets of five questions with 4/5 (80%) accuracy. The assessments include solving for missing part, missing whole, missing percent, and a combination of these three missing elements.
Lesson Objective Tips:	• Check it with SMART. (Is it Specific, Measurable, Achievable, Relevant, and Timely?)

Topic	Your Objectives, Materials, Vocabulary, and Culturally Responsive Teaching
Texts, Materials, Resources (also see checklist below):	Students will need either a smart phone, laptop or computer, and internet. They are permitted to use a calculator as well. The teacher and the student will need to create a free account in Nearpod. The teacher will search for the following titles: *Percents: Finding the Part* *Percents: Finding the Whole* *Percents: Finding the Percent* *Problem Solving: Percentages* Once the teacher selects the listed lessons to add to their account, they need to obtain the student-paced code for each lesson (by simply clicking on the student-paced tab and obtaining the code given). The teacher could utilize Google Classroom to distribute the assignment along with the codes. If they do not use Google Classroom, they could find the best means of communication to provide the codes to their students in the proper order to be completed. The lessons listed are available in the Nearpod Library.
Texts, Materials, Resources Checklist:	☐ Are the recommended texts relevant to adult learners, culturally responsive, and useful for building knowledge and achieving the objectives?

Percent – Introduction and Solving for Missing Part, Whole, and Percent Lesson Plan

Pennsylvania Adult Education Resources

Topic	Your Objectives, Materials, Vocabulary, and Culturally Responsive Teaching
Lesson Vocabulary:	**Decimal** – A fraction in which the whole is divided into tenths, hundredths, thousandths, and so on **Decimal point** – A dot that separates whole numbers from decimal fractions **Fraction** – A part of a whole, 1/10 represents 1 part out of a whole divided into 10 equal parts; a fraction represents a division problem., e.g., 6/2 = 3 **Numerator** – The top number in a fraction; represents the "part" of the whole in percent calculations **Denominator** - Tthe bottom number or divisor in a fraction; in percent calculations, the denominator represents the whole. **Ratio** – An ordered pair of numbers *a* and *b*, written *a/b* where *b* does not equal 0; can also be written *a:b* **Proportion** – Two ratios set equal **Percent** – For each or for every one hundred; represents a fraction in which the denominator is always 100 and is represented by the percent sign (%).
Culturally Responsive Teaching Notes (also see checklist below):	Click or tap here to enter text.
Culturally Responsive Teaching Checklist:	☐ Is it evident that students will connect content to their own lives and to what they already know? ☐ Do the student resources regularly include authors, images, and ideas from a range of racial, cultural, linguistic, gender, and (dis)ability representations and backgrounds, especially those of our students? ☐ Do cultural representations and varied perspectives seem to be fair and accurate? Are stereotypes avoided?

Instructional Activities

Topic	Lesson Information
Lesson Introduction:	This supplemental distance lesson is meant to be a follow-up reinforcement to in-class instruction on percent. The students will go to Nearpod.com and create a student account. The teacher will download the lessons listed in the Material and Resource section. The teacher will provide the student with the codes given when the teacher clicks on the student paced option.
Lesson Introduction Tips:	• Explain how the lesson objectives will be shared with learners. • Make connections to learners' goals and prior and future lessons.
Lesson Body, **Direct Instruction:**	The body of this lesson requires students to complete four Nearpod lessons. All the instruction, guided practice, independent practice, and assessment are included in each lesson. The teacher will provide the students with the codes given when the teacher selects the student paced option. The teacher will guide the student regarding the proper order to follow, as listed below. ***Percents: Finding the Part*** ***Percents: Finding the Whole*** ***Percents: Finding the Percent*** ***Problem Solving: Percentages***
Lesson Body, **Guided Practice:**	Guided instruction is provided in each lesson. See the listed Nearpod lessons.

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Lesson Body, Independent Practice:	Independent practice is provided in every lesson. See the listed Nearpod lessons.
Lesson Body Tips:	• Provide enough detail that another instructor could teach this lesson based on the information in this lesson plan. • Include how the students will be grouped, approximate timeframes for each activity, and how technology will be integrated. • Describe where in the lesson sequence, and how, the instructor will model the target skills and/or tasks for the learners.
Differentiation (also see checklist below):	Click or tap here to enter text.
Differentiation Checklist:	☐ Are teachers cued to adapt instruction for their specific learners? ☐ Are there adequate supports to help teachers differentiate instruction to meet the needs of individual learners, including English learners and those with learning disabilities? (e.g., texts at different levels, broad topics or compelling tasks that allow teacher/student flexibility) ☐ What kinds of choices are students able to make within the lesson plan (e.g., text selection, project topics or products)?
Assessment:	Click or tap here to enter text.

Topic	Lesson Information
Assessment Tips:	• Describe the ongoing assessments that will be used to check learners' progress toward the lesson objectives. • Describe the cumulative assessments that will measure the extent to which learners met the lesson objectives.
Lesson Conclusion:	Every lesson provides the student an opportunity to reflect on the lesson and provide feedback to the instructor. The instructor will review the student responses and follow-up with any questions or concerns.
Lesson Conclusion Tips:	• Review lesson objectives. • Provide an opportunity for student reflection. • Connect to prior and future learning.
Lesson Extension, Homework:	Click or tap here to enter text.
Lesson Extension, Additional Enrichment/Practice Opportunities:	Click or tap here to enter text.
Key Shifts:	• Check to ensure that your lesson addresses the Key Shifts in the CCRS.

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ELA Key Shifts (check all that apply):	☐ Text Complexity ☐ Evidence ☐ Building Knowledge
Math Key Shifts (check all that apply):	☐ Focus ☐ Coherence ☐ Rigor

Instructor Reflection Before the Lesson

Instructor Reflection Questions (to be completed before teaching the lesson):

- Are there opportunities to position students as experts on topics?
- What implicit bias might be reflected in the lesson or instructional design of the lesson?
- Were sufficient instructions on the use of digital tools provided and do students have an opportunity to practice?
- Were students provided with the opportunity to make choices regarding the lesson topic, project, etc.?

Instructor Reflection After the Lesson

Instructor Reflection Questions (to be completed after teaching the lesson):

- What went well in the lesson?
- What did not go well in the lesson?
- Did the learners meet the lesson objectives? If not, why?
- What changes should be made for next time the lesson is taught?