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| Overview | Using basketball, students will work in pairs of two to practice learning about fractions, decimals, and percents. At the end of the activity, students will become more comfortable explaining the relationships among fractions, decimals, and percents. |
| Objectives | When given a fraction, decimal, or percent, students will be able to understand and identify the relationship and equivalencies between them with 100% accuracy.   * Given different sets of fractions students must break them down into decimals and percents * Compare fractions by finding a common denominator * Order fractions, decimals, and percents using a variety of methods * Rewrite fractions as decimals and decimals as percents |
| Teaching Standards[[1]](#footnote-1) | **5.1 –** Students compute with whole numbers, decimals, and fractions and understand the relationship among decimals, fractions, and percents. They understand the relative magnitudes of numbers. They understand prime and composite numbers.  **5.1.4 -** Interpret percents as a part of a hundred. Find decimal and percent equivalents for common fractions and explain why they represent the same value. (Core Standard) |
| Required Materials | * Smartboard * Notebook and paper for each recorder * Ten separate trash cans (or basketball hoops) * Set of number cards * 100 pieces of scrap paper |
| Time Needed | About 30 minutes |
| Procedures | 1. Start by asking students about their favorite athlete and have a few share their ideas. 2. Discuss the term “stats” and how the people keeping these stats need to be accurate. 3. Use a volunteer to demonstrate the activity the whole class will be doing. 4. Pretend that you pulled the number card that says you get 4 attempts. Have your volunteer record how many you make on a paper. Make 2 of the 4 shots. 5. On the smartboard, write your made shots over your total shots and have the class change this into a decimal and percent. 6. Make sure all the students understand the activity and they are clear on how to convert their shots. If the information is still unclear, you can go over another example. 7. Put the students in groups of two and let them decide who will be the “shooter” and who will be the “recorder”. 8. Walk around the room and let them pick out a number card. After they pick their card, they should get their appropriate number of “basketballs” and begin the activity. 9. When they have finished shooting, the pair needs to decide what their fraction is in decimal and percent form. 10. One of the pair needs to come up to the Smartboard and write their answers in the table. |
| Assessment | Following this activity, students will be able to understand and know how to convert fractions, decimals, and percents. To test their knowledge, students will be provided a quiz. The quiz will consist of students converting fractions to decimals, decimals to percents, and percents to fractions. |
| References | http://statestandards.achieve100.com/?p=55  http://www.uen.org/Lessonplan/preview?LPid=15230 |

1. http://statestandards.achieve100.com/?p=55 [↑](#footnote-ref-1)