



Metric Shuffle



Overview: the purpose of this activity is to practice the steps necessary to convert units within the metric system, and to have fun while doing it.

Materials:

- an area 25 floor tiles long by 3 floor tiles wide
- 2 cues
- 6 disks (3 black and 3 red)
- 1 set of laminated numbers
- score sheets with problem sets for each round
- writing utensil

Procedures:

1. Organize student teams. Teams can be composed of one, two, or three students, but should not exceed three.
2. Obtain the necessary materials listed above (with the exception of the disks).
3. Determine opposing teams.
4. Complete the problem set for the first round with your team.
5. Compare first round answers with the opposing team.
 - a. If opposing teams have the same answers both teams should move on to step five. If answers differ, competitors should move on to step 4b.
 - b. Determine which team has the correct answer by collectively performing the conversion(s) in question. A consensus must be reached between both teams and the teacher should be requested if an agreement cannot be reached.
6. Fill in the "Conversion - Points Earned" column with one point for each correct conversion. Additionally, teams earn one disc for every two correct conversions - the number of disks earned should be written in the "Total number of discs earned" section on the scoresheet.
7. Flip a coin to determine the disc color (black or red) for each team.
8. Obtain the appropriate number of disks from the teacher.
9. Each person should take one practice "push" by placing the disc behind the near edge of the shuffle court, also known as the foul line. They should then use the cue to "push" the disc toward the far edge of the shuffle court, also known as the deadline.

10. Determine which team will go first by placing a representative disc behind the foul line. One competitor from each team should use the cue to "push" the team's disc towards the deadline. The disc closest to the deadline, without touching it or going over, represents the team that will go first.
11. Starting at the deadline, place the laminated numbers on the floor, skipping one tile between numbers. The numbers used should coincide with the answers from the previously converted problem set (going in order from problem one, for the first set, to problem six, for the remaining five sets).
12. One at a time, each team member should place their designated disk behind the foul line and use the cue to "push" it to the decimal location determined after the conversion was made. For example, if the first problem was to convert 7,318 meters to centimeters, the numbers 7 3 1 8 would be aligned in the "number lane," with seven starting on the deadline and the remaining numbers following. Since a conversion would result in a value of 73.18 centimeters, the teams would try to "push" the disc to the location between the three and one.
 - a. The team that gets the disc closest to the actual position of the decimal point will earn two points. Closest means most in line with the correct decimal point location, in the column where the decimal point should be located. Fill in the "Shuffle - Points Earned" column with two points.
 - b. If your disc goes outside of the shuffle court, the disc does not count and there is a three point penalty.
 - c. It is acceptable to "bump" a competitor's disc out of the way; however, if the interaction with them causes your disc to move outside of the shuffle court, the disc does not count, there is a three point penalty, and your team loses any remaining "pushes."
 - d. If the laminated numbers are hit with the disc and the converted value is changed or disrupted, a six point penalty will be applied and your team loses any remaining "pushes."
 - e. Any team that interferes with the opposing team's "push" will be disqualified from the round.
 - f. **All penalties should be assessed in the "Penalty - Points Deducted" column on the score sheet.**
13. Steps eleven and twelve should be repeated for the remaining conversions.
14. Determine the total number of points earned from the round. The total number of points should take into account any deductions. Competitors should agree on the number of points earned/lost by each team.
15. Repeat the above steps for each of the remaining rounds.

Your Team:		vs.	Competitor:		<h1>Metric Shuffle</h1> <p>- Round 1 Score Sheet -</p>					
Members:			Members:							
Problems				Scoring Categories						
	Starting Value	=	Converted Value		Conversion <i>(Points Earned)</i>	Shuffle <i>(Points Earned)</i>	Penalty <i>(Points Deducted)</i>			
1.										
2.										
3.										
4.										
5.										
6.										
<p>Total number of discs earned <i>(1 disk per every two correct conversions)</i></p>					Category Points		-			
					Total Points				Conversion + Shuffle - Penalty	

Your Team:		vs.	Competitor:		<h1>Metric Shuffle</h1> <p>- Sectional Semi-Finals -</p>		
Members:			Members:				
Problems				Scoring Categories			
	Starting Value	=	Converted Value		Conversion <i>(Points Earned)</i>	Shuffle <i>(Points Earned)</i>	Penalty <i>(Points Deducted)</i>
1.							
2.							
3.							
4.							
5.							
6.							
Total number of discs earned <i>(1 disk per every two correct conversions)</i>				Category Points			-
				Total Points	Conversion + Shuffle - Penalty		

Your Team:		vs.	Competitor:		<h1>Metric Shuffle</h1> <p>- Sectional Finals Score Sheet -</p>					
Members:			Members:							
Problems				Scoring Categories						
	Starting Value	=	Converted Value		Conversion <i>(Points Earned)</i>	Shuffle <i>(Points Earned)</i>	Penalty <i>(Points Deducted)</i>			
1.										
2.										
3.										
4.										
5.										
6.										
<p>Total number of discs earned <i>(1 disk per every two correct conversions)</i></p>					Category Points		-			
					Total Points				Conversion + Shuffle - Penalty	