NFL DIVISIBILITY DANCE

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Description: Students will use the football scores from the previous weekend's NFL games to master the divisibility rules and create the steps of a "divisibility dance."

Learning Objectives:

- Students will learn to collect data.
- Students will learn to complete tables with numerical data.
- Students will understand the consistency of the divisibility rules.
- Students will develop fluency in dividing whole numbers.
- Students will describe numbers according to the nature of their factors.

Activity Time: 30 minutes per week during football season or can be a one-time activity

Materials:

- Divisibility Dance worksheets (page 4 of 4). Feel free to adjust activities as appropriate for your class.
- Pencils
- CD player with CDs
- Several copies of the sports section of the newspaper

Directions:

- See sample completed worksheet as an example of this activity. Feel free to adjust activities as appropriate for your class.
- Have students begin by individually selecting which of the eight NFL divisions they will "represent" for the season. For a list of divisions and their teams, log on to www.nfl.com.
- Each Tuesday of the NFL season, distribute the sports section from the newspaper to students and have them locate the scores from the previous weekend for the four teams in their selected NFL division. You could also have students look for the scores at home and bring them to class.
- Have them complete the first chart on the worksheet, listing the number of points scored by each of the teams and then adding those scores for a total number of points. Then, have them determine the average number of points scored in the division.

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Directions continued:

- Have students complete the second chart on the worksheet by indicating whether the total points scored are divisible by one through 12.
- If the student checked "yes" for divisibility of the number, have them determine what the number was multiplied by to get the total points. Have them write the factor of their divisibility term in the column headed by "X." This number will determine the number of repetitions that will be completed for the activity.
- After completing the worksheet, have the class spread out or go outside and perform the activities (repetitions determined by the "X" column) indicated on the worksheet. The division that has the highest point total gets to choose the music to play during the Divisibility Dance.
- Students will perform all the steps of the physical activity, regardless of the division they represent.

Submitted by Amy Moody, Holy Nativity Episcopal School, Panama City, Florida

Correlation to National Curriculum Standards:

Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

- Work flexibly with fractions, decimals and percents to solve problems.
- Understand and use ratios and proportions to represent quantitative relationships.
- Develop an understanding of large numbers and recognize and appropriately use exponential, scientific and calculator notation.
- Use factors, multiples, prime factorization and relatively prime numbers to solve problems.
- Develop meaning for integers and represent and compare quantities with them.

Understand meanings of operations and how they relate to one another.

- Use the associative and commutative properties of addition and multiplication and the distributive property of multiplication over addition to simplify computations with integers, fractions and decimals.

Compute fluently and make reasonable estimates.

- Develop, analyze and explain methods for solving problems involving proportions, such as scaling and finding equivalent ratios.

From NCTM http://standards.nctm.org/document/chapter6/numb.htm

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Name: Anna Date: Oct 20

****SAMPLE COMPLETED WORKSHEET****

Week:	1
DIVISION: AFC East	**POINTS SCORED**
Miami Dolphins	6
Buffalo Bills	17
New Eng. Patriots	3
New York Jets	24
Total Points Scored	50
Average Number of Points Scored in the Division	12.5

If one of your teams did not play this week, enter "0" for "points scored."

Total Points = 50	Yes	No	X?	Activity
Divisible by 1?	√		50	Jog in place
Divisible by 2?	√		25	"Raise the roof"
Divisible by 3?		√		Twists
Divisible by 4?		√		Squats
Divisible by 5?	√		10	Jumping Jacks
Divisible by 6?		√		Punches
Divisible by 7?		√		Kicks
Divisible by 8?		√		Dance
Divisible by 9?		√		March in place
Divisible by 10?	√		5	"Swimming"
Divisible by 11?		√		Hops
Divisible by 12?		√		Full body shake

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Name:_____ Date: _____

Week:	1
DIVISION:	**POINTS SCORED**
Total Points Scored	
Average Number of Points Scored in the Division	

If one of your teams did not play this week, enter "0" for "points scored."

Total Points = 50	Yes	No	X?	Activity
Divisible by 1?				Jog in place
Divisible by 2?				"Raise the roof"
Divisible by 3?				Twists
Divisible by 4?				Squats
Divisible by 5?				Jumping Jacks
Divisible by 6?				Punches
Divisible by 7?				Kicks
Divisible by 8?				Dance
Divisible by 9?				March in place
Divisible by 10?				"Swimming"
Divisible by 11?				Hops
Divisible by 12?				Full body shake