

teaching math concepts

## **DANCING NUMERALS**

THROUGH MUSIC, GAMES AND CHANTS

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### **1. TEN RIPE APPLES ON THE TREE**

*Math Concepts:*

Counting in descending order (10-1)

Subtraction of 1

*Words:*

*There were 10 ripe apples on the tree,*

*There were 10 ripe apples on the tree,*

*But one fell down*

*And broke its crown,*

*There were 9 ripe apples on the tree.*

*Verse 2: 9 ripe apples*

*Verse 3: 8 ripe apples*

*Etc. to "There was 1 ripe apple*

*There were 0 ripe apples"*

*Movements:*

Teacher and students hold up the proper number of fingers on each verse to represent the apples. Children are spaced so they will not bump others. On the words "one fell down" each child rolls on his back or side, pretending to fall; on "broke his crown" sit up and touch head; on "there were \_\_\_ ripe apples," say the correct numeral and hold up the proper number of fingers. Repeat actions on each verse.

## **2. DRAW A SQUARE/WALK A SQUARE**

### *Math Concepts:*

Draw geometric shapes  
Walking geometric shapes

### *Words:*

*Can you, can you draw a square,  
Draw a square, draw a square,  
Let us make one in the air,  
Draw it with your hand.*

*Verse 2: circle...elbow*

*Verse 3: triangle...chin*

*Verse 4: rectangle...toes*

*Verse 5: oval...tongue*

### *Variations:*

1. Repeat all verses, substituting "walk" for "draw", e.g.,  
*Can you, can you walk a square,  
Walk a square, walk a square?  
Can you, can you walk a square?  
Can you walk it slowly?*

*Verse 2: circle...fast*

*Verse 3: rectangle...forward*

*Verse 4: oval...backward*

*Verse 5: triangle...sideways*

### *Movements:*

Sing and do what the words say. During the instrumental interlude continue to draw the geometric shapes.

## **3. JACK BE NIMBLE**

### *Math Concepts:*

Counting  
Numerical value

Words:

*Jack be nimble, Jack be quick,  
Two times jump the candlestick...1, 2*

*Verse 2: Four times. . . 1, 2, 3, 4*

*Verse 3: One time. . . 1*

*Verse 4: Five times. . .1, 2, 3, 4, 5*

*Verse 5: Three times . . . 1, 2, 3*

*Verse 6: Ten times . . . 1, 2, 3, 4, 5, 6, 7, 8, 9, 10*

*Verse 7: Zero times . . .*

Variations:

Hop, walk over, leap

Movements:

Children stand in place and sing, snapping fingers, bending knees, or doing other motion to keep time with the music. After the words "Two times jump the candle stick," jump in place 2 times (in time with the rhythm of the music, if possible). Continue, jumping as many times as the words say.

#### **4. ONE POTATO, TWO POTATO**

**Math Concepts:**

Counting in order (1-7)

Counting in descending order (7-1)

Meaning of positional words "bottom" and "top"

Words:

*One potato, two potato, three potato four,*

*Five potato, six potato, seven potato more.*

*(Repeat)*

*Seven potato, six potato, five potato four*

*Three potato, two potato, one potato more.*

*(Repeat)*

*Movements:*

Each child places one fist on his lap and the second fist on top of the first. All sing, moving the fist on the bottom to the top as the name of each numeral is sung. Repeat.

Do once more, going from 1 to 7 and then counting in descending order from 7 back to 1, with fists starting held high, the fist on the top moving to the bottom as the name of each numeral is sung.

**5. COPYCATS**

*Math Concepts:*

Counting in order (1-10, 1-9, 1-12)

Counting in descending order (9-1)

Counting in groups of 2's, 3's, and 4's

*Words: Copycat Two by Two*

*Teacher or leader (designated hereafter as T): 1-2*

*Class or responding group (designated as C): 1-2*

*T: In a canoe*

*C: In a canoe*

*T: 3-4*

*C: 3-4*

*T: Sweep the floor*

*C: Sweep the floor*

*5-6 . . . hand flicks*

*7-8 . . . slam the gate*

*9-10 . . .do it again*

*(Repeat all. On the Repeat the last line is 9-10 . . . that is the end.)*

*Copycat Three by Three*

*T: 1-2-3*

*C: 1-2-3*

*T: Climb the tree*

*C: Climb the tree  
4-5-6 . . . do some tricks  
7-8-9 . . . draw a line*

*9-8-7 . . . point to heaven  
6-5-4- . . . write the score  
3-2-1 . . . now I'm done*

*(Repeat all)*

*Copycat Four by Four*

*T: 1-2-3-4  
C: 1-2-3-4  
T: Touch the floor  
C: Touch the floor*

*5-6-7-8- . . . stand up straight  
9-10-11-12 . . . put it on the shelf*

*(Repeat all)*

*Movements:*

The teacher chants the first line (the "call") and the students the repeating line (the "response"), all pantomiming the actions suggested by the words. When the class knows the chant, then a student (or selected part of the class) can do the leader's role, and the other students (or remaining part of the class) the response. (Note: The teacher should point out that the group of 2's and 4's are even numbers.)

## **6. DRAWING NUMERALS**

*Math Concepts:*

*Drawing numerals in the air  
Counting in order (0-9)*

*Words:*

*Start at the top, go around to the left,  
Start at the top, go around to the left,  
Start at the top, go around to the left,*

*To draw a numeral 0.*

*Start at the top, and come straight down,*

*Start at the top, and come straight down,*

*Start at the top, and come straight down,*

*To draw a numeral 1.*

*Draw a half circle and go straight out. . . .*

*(repeat 2 times)*

*To draw a numeral 2.*

*Draw a half-circle and another half circle . . .*

*To draw a numeral 3.*

*Down and right and come straight down . . .*

*To draw a numeral 4.*

*Down and around and put on the hat . . .*

*To draw a numeral 5.*

*Curve it down and put on a toe. . .*

*To draw a numeral 6.*

*Go to the right and down in a slant. . .*

*To draw a numeral 7.*

*Draw an S and curve it back up. . .*

*To draw a numeral 8.*

*Make a balloon and then a stick. . .*

*To draw a numeral 9.*

*Movements:*

Draw numerals in the air rhythmically, doing the actions the words designate (one numeral per each line of words). During the instrumental interlude continue to draw the numerals.

## **7. ELEPHANT SONG**

*Math Concepts:*

Counting in order (1-10)

Addition of 1

*Words:*

*One elephant went out to play*

*On a spider's web one day*

*He had such enormous fun,*

*He asked another elephant to come.*

*Verse 2: Two elephants*  
*Verse 3: Three elephants*  
*Etc. to Verse 10: Ten elephants. . . they*  
*asked all the other elephants to come*  
*Verse 11: All the elephants. . . they sat*  
*down when they were done.*

*Movements:*

All children sing and hold up the proper number of fingers to represent the elephants. One child is chosen to be the first elephant; during the first verse he "plays" or dances in front of the other children, and in the instrumental interlude chooses another elephant to join him. Repeat the actions, with each new elephant choosing the succeeding elephant.

## **8. THE MONSTERS**

*Math Concepts:*

Counting by 2's, 3's, etc. to 10's  
Counting by 100's and 1000's

*Words:*

*Listen to the monsters*  
*Stomping with their shoes.*  
*Hear their funny voices,*  
*They can count by 2's. . . 2,4,6,8,10*

*Verse 2: Chewing on green peas . . . 3's*  
*. . . 3,6,9,12*

*Verse 3: Banging on the doors. . . 4's*  
*. . . 4,8,12,16*

*Verse 4: Saying "Goodness gracious alive". . . 5's*  
*. . . 5,10,15,20*

*Verse 5: Playing rhythm sticks . . . 6's*  
*. . . 6,12,18,24*

*Verse 6: Climbing up to heaven. . .7's*  
*. . . 7,14,21,28*

*Verse 7: Slamming all the gates. . .8's*  
*. . . 8,16,24,32*

*Verse 8: Cutting down the pines. . .9's*  
*. . . 9,18,27,36*

*Verse 9: Rumbling to their dens. . .10's*  
*. . . 10,20,30,40,50,60,70,80,90,100*

*Verse 10: Jumping on their beds*  
*. . . 100's. . . 100,200,300,400,500,600,700,800,900*

*Verse 11: Yawning when day is done. . . 1000's*  
*1000,2000,3000,4000,5000,6000,7000,8000,9000,10,000*

#### *Movements:*

All children chant and pantomime in place the movements suggested by the words - later on the teacher may wish to let the children move around the room. (Note that the music allows 4 counts for the pantomime, setting limits so that the children do not just "keep on going.")

### **9. SKIP**

#### *Math Concepts:*

Joining of sets  
Value of number

#### *Words:*

- Skip, skip to the candy shop*  
*To buy some penny candy*  
*2 for you and 2 for me,*  
*Yes. . . 4 will be dandy*

*Skip, skip, skipping home*  
*With lots of penny candy,*  
*1 for you and 1 for me,*

*Yes . . . 2 will be dandy.*

*2. Tiptoe to the candy shop . . .*

*To buy some penny candy,*

*3 for you and 1 for me,*

*Yes . . . 4 will be dandy.*

*Tiptoe, tiptoe home*

*With lots of penny candy,*

*2 for you and 1 for me,*

*Yes. . . 3 will be dandy.*

*3. Run, run to the candy shop*

*To buy some penny candy,*

*4 for you and 4 for me,*

*Yes. . . 8 will be dandy.*

*Run, run, running home*

*With lots of penny candy*

*1 for you and 2 for me,*

*Yes. . . 3 will be dandy.*

*4. Walk, walk to the candy shop*

*To buy some penny candy,*

*1 for you and 2 for me,*

*Yes. . . 3 will be dandy.*

*Walk, walk, walking home*

*With lots of penny candy,*

*1 for you and 0 for me,*

*Yes. . . 1 will be dandy.*

***Movements:***

All children (or a selected group, if desired) participate singing with the CD, skipping one direction on the instrumental interlude following the first section of music ("to the candy shop") and in the reverse direction on the next section ("skipping home"). Children say the proper numeral for the sum during the short pauses in the music (e.g., "2 for me and 2 for you, yes. . . will be dandy.")

## 10. THE COMBINATIONS ARE THE GAME

### *Math Concepts:*

Joining of sets/additions

Different addends can equal the same sum

### *Words:*

*Verse 1: A numeral came to play with me,  
I said, "What is your name?"  
He said "My name is 2,  
The combinations are the game.*

*Chorus: 2 is 1 plus 1  
1 plus 1, you see  
And if you want to call me that,  
A 1 plus 1 I'll be."*

*Chorus: 2 is 0 plus 2, etc.*

*Chorus: 2 is 2 plus 0, etc.*

*Verse 2: My name is 3 . . .*

*Chorus: 3 is 2 plus 1 . . .*

*Chorus: 3 is 1 plus 2 . . .*

*Chorus: 3 is 3 plus 0 . . .*

*Chorus: 3 is 0 plus 3 . . .*

### *Movement:*

Clap or snap fingers, sing, sway. The teacher (and later, selected children) can draw the set/numeral and the different sets/addends on the chalkboard.

## 11. CHANGE THE ORDER

### *Math Concept:*

Reversibility of addends - commutativity

### *Words:*

*Cats and dogs,  
Change the order;*

*Now it says. . . dogs and cats.*

*Verse 2: Slow and fast. . .fast and slow*

*Verse 3: Above and below. . . below and above*

*Verse 4: Small and large . . .large and small*

*Verse 5: Short and tall. . . tall and short*

*Verse 6: Old and young. . . young and old*

*Verse 7: Hot and cold . . .cold and hot*

*Verse 8: Green and red. . . red and green*

*Verse 9: A and B. . . B and A*

***Movements:***

Hold up LH on the word "cats," RH on the word "dogs." Cross hands on "change the order." Repeat with each successive pair of words. Add fingersnaps if desired. On the slight pause in the music, children try to sing the correct answer (dogs and cats) before the vocalist does.

**12. GOING ROUND THE MOUNTAIN**

***Math Concepts:***

Sets (of 1,2,4, 0, etc.)

***Words:***

*Going round the mountain one by one,  
Going round the mountain on by one,  
Going round the mountain one by one,  
Rise, sugar, rise.*

*Verse 2: two by two*

*Verse 3: four by four*

*Verse 4: one by one*

*Verse 5: three by three*

*Verse 6: zero by zero*

***Movements:***

Walk around the room in sets, as directed by the words (individually on "one by one," with a partner on "two by two," etc., sitting down on "zero by zero.")

Variations:

As a further challenge to a mature group, add tiptoe, gallop, run, slide, leap, hop, etc.



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