# Jumpin' Numbers and Shakin' Shapes 

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## What is Jumpin' Numbers and Shakin' Shapes?

Jumpin' Numbers and Shakin' Shapes is a system of teaching numeral and shape recognition through movement, music, and flashcards that contain a visual clue embedded into the numeral or shape. Therefore, children use nearly all of their learning modalities and styles (visual, auditory, musical, kinesthetic) to help them recall the names of the numbers and shapes.


## This is how it works:

1. The children are shown a flash card of a number or shape with a visual cue on it.
2. They make a motion that relates to the visual cue. (Ex. For number 8 they make a monkey scratching motion.)
3. They learn songs that further reinforce the names of the numbers or shapes and its corresponding motion.
4. Later, the visual cue on the number or shape is removed, and the kids respond as before, saying the name of the number and doing its motion.
5. Soon (usually after about 3 weeks of school), most Kindergartners have learned all of the numbers and shapes in a fun and painless way.

## Why Does This Work?

When children sing and dance their way through their lessons, they are using "elaborative rehearsal" to help them memorize the material. Elaborative rehearsal is the opposite of rote rehearsal.


Rhyme, rhythm, and music are EXCELLENT forms of elaborative rehearsal.
So when you sing songs and dance with your students, you really can help them learn very effectively, because music makes information "stick" in long term memory.

According to Gardner's Theory of Multiple Intelligences, the more senses we use in the learning process, the more we retain.

Want your kids to remember even more?
Then have them "hear it, see it, say it, and do it" when you practice.
AND... adding singing into it makes it fun! Most young children are naturally kinesthetic learners. They learn by doing and playing. And even the youngest babies respond to music!


## Help! I've got a silly song stuck in my head!

To help children remember, have your students use as many as senses as they possibly can while practicing the material. Children look forward to lessons that involve music and movement, and see them as a "break" rather than a lesson. Intersperse active, physical lessons with more sedentary lessons to keep children's brains alert and focused on you.


The best songs for teaching young children include motions, are repetitive, and are just a little bit silly! As a rule of thumb, if it sticks in your head and drives you crazy, you probably just hit the nail right on the head!

## You can practice numbers and shapes with your whole class at the same time without the discipline problems that come from bored children, because all of the children usually enjoy practicing not matter what their level.

Need another reason to sing and dance?

## Music makes kids happy, and happy kids learn and remember more!

Teachers can avoid conflicts with their children (discipline problems) by giving them permission AND a good reason to move around during lessons. In addition, the use of movement in the teaching of young children can significantly mask the symptoms of ADHD.

Emotion increases retention.
(We tend to remember things that are happy, funny, or sad more easily than those that are neutral to us.) Technically speaking, the presence of positive feelings in the classroom increases the probability that information will be stored in long term memory.

Goal: To bypass short-term memory and "pop" the numbers and shapes into long-term memory in a fun and painless way, as efficiently and quickly as possible so that you can "move on" with the rest of the math standards that depend upon a working knowledge of the numerals and shapes.

## Jumpin' Numbers and Shakin' Shapes Songs

## Number 0

Zero, zero!
There's nothing there you know. So make a circle, Round you go! Zero, zero!


Number 1
Number 1, number 1 You are long and straight and tall. Number 1, number 1, You're always first of all.


Number 2
Two, two, two, Two, two, two, Two's a ducky Very lucky, Two, two, two!


Number 3
Kangaroo, kangaree Goes three, three, three. Kangaroo, kangaree Goes three, three, threel


Number 4
4 is like a bunny As it hops across the floor. 4 is like a bunny, Four, four, four!


Number 5
Number 5, number 5,
Number 5 is round and fat! He's got a great big belly button,


And he wears a funny hat!
Number 6
My little kitty cat goes number 6 , Number 6, number 6,
$-N$
$:$ 6, 6, 6!
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7,7,7
It's pointy on the top. 7,7,7.
A big karate chop!

Number 8
Scritchity scratch goes number eight, Number eight, number eight! Scritchity scratch goes number eight, Monkey number eight!

Number 9
Snuggle wuggle number nine,
Number nine, number nine,
Snuggle wuggle number nine, Hug your Teddy!

Number 10
Ten fingers, ten toes,
Ten bumps upon my nose!
First- a one,
 -

A zero,
Then I'm done!
The Circle
A circle is like the sun,
A circle is like the moon,
A circle is like the ball
I bounce every afternoon. Boom!

## The Square

A square is a box,

- A present you see.

A square is a present,
Happy birthday to
me!



## Teaching Ideas to Build Numeral Recognition and Number Concepts

* To play "Bang!": The dealer gives each child a card, one at a time. The child tries to identify the card. There is no penalty for not knowing the answer. If a child receives a "Bang!" card, then he or she gets all of the children's cards at the table. When the dealer's cards run out, the child with the most cards is the winner.
* Print various numerals on paper plates with a marker. Have children place the correct number of counters on each plate. Work on one number at a time, adding more as the children master each number.

* Make a "Number Gadget!" Get some cardboard, and put some numbers cut out of The Number Gadget sandpaper on it. Then put that quantity of stickers on the back of it. Add a grommet for a shoe lace on the corner of the card board. Have children string the correct number of beads onto the sting so that it matches the numeral.
* Build the shapes of the numerals with blocks. Have children try to copy other shapes as a perceptual building and problem solving activity. Learning Resources Creative Color Cubes is a great little set to have.
* Pom-Pom Numbers

The children try to read the color words and find the correct number of colored pom poms. Try using tweezers to pick them up! Look for a free download of a recording sheet on my blog: http://heidisongs.blogspot.com.

* Ziplock Quilt Number Game

Write numerals on index cards and place them in a pile next to the game board. Each


Build Numerals
With Blocks player takes a turn selecting a card and then uses the fly swatter to swat the corresponding number. (From Pre-Kpages.com.)

* The Penguin Counting Game

Get some Insta-Snow and mix it up with water in a bowl. Have kids roll a die and count out the correct number of penguins and place them into the bowl of snow. (From Pre-
Kpages.com.)

* Ten Frames and Counters
"Ten Frames" can help develop a sense of "ten-ness" at a glance.
Download ten frames free at www.heidisongs.com. Have the children look at the ten frames and try to copy that number into a modified egg carton that has just ten spaces-
 five on each side. Or, get the CounTEN Sorting Cartons at http://www.etacuisenaire.com. Ice cube trays with ten spaces also work great. Sometimes these can be found at the 99 cent store. Change the objects with the seasons or the units of study, or change them with the holidays. We use small sea animals, zoo animals, insects, Chirstmas counters, Valentine's Day counters, cereal, etc.
* Show Me, Tell Me With Ten Frames

On "Show me," the kids show you the correct number of fingers. On "Tell me," they tell you the numeral.

* The Ten Frame Game: Shuffle the ten frame cards face down and have a child draw one. He should then tell you how many it shows, and show you that many fingers. Then he should build the number in the carton.
* Building Number Concepts: The Number Tree



## The children draw a Ten Frame and count the dots. Then they color or paint in the

 apple on the tree. The tree is a free download on my website: www.heidisongs.com.
## * Pumpkin Patch Counting

The children choose a ten frame number and put that many animals in the pumpkin patch. Then they check with the teacher. If the teacher agrees that the number is correct, then he or she may color in the pumpkin with that number. The master is a free download on Heidi's blog. For the teens and twenties numbers, just give them an ice cube tray. They fill the ice cube tray to make ten, and then put the rest of the animals in the patch. Rather than choose a number from a ten frame, I just have them pick any number from the patch to work on.


The Number Tree

Spider Web Counting
Same idea as above, but with spiders on a web. The master is another free download on my blog. Combine fine motor skills with math by providing little "bug catchers," "grabbers," or tweezers for kids to pick up objects.


* Make numerals out of pattern blocks! Number Pattern Blocks available for purchase at heidisongs.com. Also printed in black and white for gluing down paper pattern blocks and then stamping the correct numbers at the top.
* Build Number Towers with unifix cubes. Have children stand them up on end $i$ order so that they build a gradually growing tower. (From Developing Number Concepts Using Unifix Cubes by Kathy Richardson).
* Build addition concepts by starting with "one more than." One more than three is four, etc. Also, just having them build trains of a certain number many
 times is good practice!

Number Pattern Blocks

* Use a permanent marker to write numbers on unifix cubes separated by color. Then have the children practice putting them in order. Keep them on hand so that children may practice whenever they finish their work. Keep the sets separated by color to help keep them organized.


## Numbers in Order

With Unifix Cubes * Sing the number song and then have children build that number with base ten blocks to help build number con-


Matching Sets Cards cepts, writing the numeral above the blocks.

* Sing 1-100 song while pointing to the numbers as you go along on a one

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|  | (1) 웅 | (3) |

Teen Number Counting Cards hundred chart. Encourage children to use the song while placing numbers in order.

* Keep several sets of numeral matching cards on hand for when children are finished with their work. Seasonal cards can easily be made with stickers, index cards, and a magic marker.
* For larger numbers, have children match the numbers to the sets by counting groups of ten and counting on from there. Then have them match these cards to the correct numerals in the teens or twenties.


> Christmas Tree Match Sets Cards These cards can also be downloaded free on my website, www.heidisongs.com. I put the cards
on a pocket chart and practiced counting on from 10 with the kids for a minute or two each day for a couple of weeks. This REALLY helped.

* Christmas Tree Match Sets Cards 0-30 are also a fun way to practice this skill around the holidays, and this is also a free download on my blog: http://heidisongs.blogspot.com. Just cut off the top part of the tree with the numeral, and match it to the correct number of ornaments.
* Combine motor development with math or language arts by writing numbers or words on "Stepping Stones" and have the kids step on them and identify the numbers as they go along. Called "Rigid Dome Cones" sold on Amazon. You can do the same thing with flat sports markers. Look for "seconds" sold online by different companies to save some money.


Match Sets Worksheets

* In order to transfer their skills to paper, they'll need to practice. There are a few free Match Sets 11-30 Worksheets on my blog, and a whole set of them that I made that are for sale on my website. Try "Communicator Clearboards" with Match Sets Worksheets (available at Nasco.com.). This is a GREAT way to review for a paper and pencil test. In September, we used them with some "Monster Numbers" worksheets for numeral writing practice.


## * Counting Fun With Zero the Hero



Sing-Along Songbooks

Get a Zero the Hero puppet, and on every tenth day of school bring the puppet out for a visit. Have the children count aloud, and have the puppet pop up each time they come to a multiple of ten. The children should crouch down while counting and then pop up when the puppet pops up, too, shouting out that multiple of ten! Then have them mimic the puppet's movements, as he bounces around, jumps, dances, etc. A Zero the Hero cone puppet seems to be currently unavailable, but a similar "Cone Puppet" is sold by ConniesEducational.com for $\$ 1.50$, but you have to CALL her to get it! You'll have to add a cape with a zero on it. Or, try the "Clown in a Cone" at 4physics.com.

* You can incorporate literacy into your math lessons by making song books with the song lyrics. The HeidiSongs Resource CD already has these formatted for you, or you can buy them as an individual download if you prefer. Or, you can type them up yourself by copying the words to the songs provided on the previous pages. This makes a nice listening center.
* You can practice counting to 100 and get the wiggles out at the same time! Some people even count it as PE minutes. This song is on both Jumpin' Numbers Vol. 1 and Musical Math.
* Squeeze in some extra review time with the songs by using them as a transitional activity in between centers or other activities. This helps get the blood moving through the body and sends oxygen to the brain to help prep the kids for their next lesson.
* Last year I had a really bright little girl who, in February, was still missing numbers 12 and 20. So I sent home the Jumpin' Numbers Vol. 2 DVD with her, with the assignment to watch it each night for a week and write the numbers after each song. When her parents felt she knew the numbers, they sent it back.
* Another year, a little boy's mom devised a reward system like this, and it really worked:

She bought him a Spiderman T-shirt he really wanted, and safety pinned the numbers to it. She tacked the shirt to the wall in her hallway. Each time they walked by, she asked him the numbers. When she felt he knew them, she took them off the shirt. When the shirt had no more numbers, he got to wear it! I have suggested this to parents who ask me for ideas to help their children learn at home.

* The Number Club:

Make a chart and put it on your wall. As the children master all of the numbers from 11-30, (or whatever your goal is,) then let them write their name on that chart as a reward.

* STILL not getting them?

Make your kids NEED them and use them!

1. Number your chairs and pencils, and have the children find certain ones that they must use each day when they sit down at your command.
2. Number your carpet squares and/or line-up spots and have them go to certain ones. If they need to know the numbers, they will learn them.

* When given a choice, always choose an engaging manipulative activity that over a worksheet. Worksheets can help you reinforce what you have already taught for understanding with manipulatives, but they never will suffice for an introduction to a numerical concept. Once the children understand a concept, then work on connecting it to print.


## List of Related Citations

Jumpin' Numbers: 0-30 By Heidi Butkus Presented by Staff Development for Educators (SDE)

Gardner, H. (1983). Frames of Mind: The Theory of Multiple Intelligences. New York: Basic Books.

Jensen, E. (1998). Teaching with the Brain in Mind. Alexandria, VA: ASCD.
Hannaford, C. \& Pert, C. (2005). Smart Moves: Why Learning Is Not All in Your Head. Stoddard, WI Great River Books.

Mah, R. (2007). Difficult Behavior in Early Childhood: Positive Discipline for PreK-3 Classrooms and Beyond. Thousand Oaks, CA: Corwin Press.

Marzano, R., Pickering, J. \& Pollock, J. (2001). Classroom Instruction That Works: Re-search-Based Strategies for Increasing Student Achievement, Alexandria, VA: ASCD.

Marzano, R. (2004). Building Background Knowledge for Academic Achievement: Research on What Works in Schools, Alexandria, VA: ASCD

Tate, M. (2007). Shouting Won't Grow Dendrites: 20 Techniques for Managing a BrainCompatible Classroom.
Thousand Oaks, CA: Corwin Press.

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