Math in Movement

training manual for elementary schools

by Suzy Koontz

This book is dedicated to Margaret Steinacher, first grade teacher *par excellence*, to my husband, Bruce and to my children, Elizabeth, Emily, Jessica and Sarah. SDK

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Table of Contents

Introduction

Do your students have so much energy that it's hard for them to sit still? Children are naturally active learners, using their bodies along with their minds to practice and acquire new skills. *Math&Movement* is a supplemental program that harnesses children's natural desire to move and gives children more opportunities to practice math skills until mastery is achieved.

I am the mother of four children. My second child needs to move. Sitting still for more than a few minutes has never been part of her game plan. Sitting down to learn math was definitely out of the question. Prior to having children, I worked for many years to understand math concepts and developed a strong passion for facilitating the process of learning math. I held opinions about the value that competence in math offered children. I felt desperate to find enjoyable methods for her to learn math.

One sunny afternoon, while we soaked in the much needed sunshine in Upstate New York, we sat outside working on skip counting. It was slow going and not very much fun until she had an inspiration. She climbed on the trampoline and began to jump while simultaneously practicing her skip counting. The results were amazing! She began to learn so quickly that we decided to make jumping and skip counting a regular part of her "learn to multiply" routine. This resulted in her mastering multiplication in record time while enjoying the process immensely — my first glimpse at the magic of movement.

After further study, I learned that movement is not magical in itself but rather that research has found a correlation between movement and enhanced learning! Multiple studies have confirmed that exercise stimulates brain growth. For example, according to Carla Hannaford, PhD, author of *Smart Moves, Why Learning is Not All in Your Head* (Great River Books, 2005), "The more closely we consider the elaborate interplay of brain and body, the more clearly one compelling theme emerges: movement is essential to learning. … Movement awakens and activates our mental capacities. Movement integrates and anchors new information and experience into our neural networks. Moving while learning increases learning."

Eric Jensen writes "Research suggests that physical activity benefits learning. Movement increases heart rate and circulation, enhances spatial learning, provides a break from learning, allows cognitive maturation, stimulates the release of beneficial chemicals, counteracts excessive sitting, and affirms the value of implicit learning." *Moving With the Brain in Mind,* Educational Leadership, v58 n3 p34-37 Nov 2000.

Dr. John Ratey, author of *Spark: The Revolutionary New Science of Exercise and the Brain* states "I cannot underestimate how important regular exercise is in improving the function and performance of the brain. Exercise stimulates our gray matter to produce 'Miracle-Gro' for the brain." This refers to the brain chemical BDNF (brain-derived-neurotropic factor). Exercise stimulates the brain to produce extra BDNF which is used to enhance the development of new neurons (and their connections).

The *Math&Movement* program is based on research that suggests that moving during learning facilitates muscle memory, an important factor with younger children whose abstract thinking skills are not fully developed. It is also based on research suggesting that cross-body movements integrate the left and right hemisphere of the brain. Cross-body movements are when the left arms or legs cross over to the right side of the body or right arms or legs cross over to the left side of the body. These movements wake up a "sleepy" brain and help to cement newly learned material in the memory.

We Have a Math Crisis

Americans are lagging behind other countries in math. The PISA (Programme for International Student Assessment) evaluation of 15–year–old students' math scores found that Americans rank 24 out of 29 industrialized nations. America sadly ranks behind 23 countries including Canada, Australia, New Zealand and Spain. In addition, the level of obesity in children is at an all time high. The *Math&Movement* program contributes to the solution of these problems by combating obesity while simultaneously improving math skills and retention.

What are the ramifications of math illiteracy? Recently I visited the space center at Cape Canaveral. I had the pleasure of listening to the story of an astronaut's journey into space. At the conclusion of his talk he shared exciting plans for the future of space travel, colonies on the moon and Mars and future exploration of the universe. However, he said, "This may not be possible because we do not have enough American students who are competent in math." In the US, there are at most 5,000 students studying aerospace engineering contrasted with one Chinese university (out of many) that has over 20,000 students eager to be hired into the space industry. Other professions need math-competent individuals as well. The following fields all depend on math.

Medical schools need students competent in math
Dentistry, veterinary medicine and other medical fields—all depend on math
Engineers build our world and need math
The financial industry needs math!

There are many fields open to our graduates who are competent in math and many foreign graduates ready to fill the vacancies.

Math is Possible for Everyone!

Many students are giving up on math at a relatively young age; it doesn't have to be this way. *Math&Movement* gives students a successful experience with math before they develop the "I can't do math attitude." It gives them the confidence to take mathematical risks.

Math phobia is rampant among adults with over 60% of Americans affected. Sheila Tobias, author of *Overcoming Math Anxiety* and *Succeed with Math* believes that math anxiety begins by feeling uncomfortable with math in elementary school. *Math&Movement* short circuits math-phobia by increasing student's math ability and math confidence. Commencing *Math&Movement* activities at a young age jumpstarts a child's positive attitude toward math. *Math&Movement* is a movement-based program. The activities catch children when they are still willing to give math a try.

Math is another language. Children are receptive to languages. I believe that unless we include more math for children in pre-school through grade four, we are missing a crucial window of opportunity in the lives of our young children. Because *Math&Movement* allows children to learn through movement and visually pleasing floor mats, math concepts become accessible to young children. The depth of understanding acquired in play-like activities will serve as a base for later construction of more advanced concepts. The intent of *Math&Movement* is not to create a push-down curriculum but rather to allow children to experience math success before they have developed any "math phobias," or any hint that math is hard!

Background Information on *Math&Movement*

Math&Movement began as a pilot study in a first grade classroom. My goal was to determine if the techniques used in my book for parents, *Multiply With Me, Learning to Multiply Can Be Fun,* were applicable in the classroom. I had studied the Brain-Gym® model previously and was thrilled to learn that the teacher incorporated Brain-Gym® into her classroom. My goal in designing the movements was to use cross-body movements and the whisper/loud counting technique from my book.

Designing movements that kids could actually remember and repeat without confusion was troublesome until I had a break-through in my thought process. As long as children

did movements that used different parts of their body—such as toes, then knees, then hips and shoulders, the children could remember the movements.

Benefits of *Math&Movement*

It is generally understood in the United States today that many school children are far less able in mathematics than is desirable and that many children are so lacking in exercise that there are serious detrimental effects to health and learning. At the same time, it is well-understood that teachers are so overburdened with heavy curriculum demands that adding special new programs is problematic. I am proposing ways of addressing these concerns within the existing programs through the incorporation of the practices and materials of *Math&Movement*.

Math&Movement is a kinesthetic, multi-sensory approach to teaching math that incorporates physical exercise. Many studies suggest that exercise stimulates learning. At-risk students often benefit from kinesthetic approaches to learning. *Math&Movement* offers an alternative approach to learning designed to "close the gap" and give every child the opportunity to become competent and confident in their math abilities.

Why Combine Movement and Learning?

Students feel better and have an increased ability to focus when movement is incorporated into their daily routine. Research suggests that it is prudent to redesign learning environments to incorporate the use of movement at regular intervals.

The Case for Adopting *Math&Movement* in Your Classroom and School

Is logical

Anyone familiar with the habits of children knows that children love to move. Movement is pleasurable and natural to children. It is logical to combine movement with learning, to offer pleasurable activities for children, to harness their love of movement and use it for enhanced learning. In addition, movement is healthy for children. Children who engage in physical activity are healthier and more alert.

Strengthens numeracy and literacy

One-to-one correspondence, which is defined as the ability to link a number name with one and only one object, is fundamental in both numeracy and literacy. The inclusion of additional practice allows children to become grounded in one-to-one correspondence

thus laying a sturdy foundation for learning additional math concepts. In addition, beginning readers benefit from continual practice with one-to-one-correspondence.

When children begin the *Math&Movement* exercises, they may not be able to coordinate their movements to the recitations of counting. However, as they imitate the leader and their classmates, and continue to engage in the exercises, they gradually become able to understand the concept of one-to-one correspondence.

Is aligned with the NCTM Principles and Standards

The activities are designed for pre-K through grade 5. The primary focus of the *Math&Movement* program is in the area of Numbers and Operations as designated in the statement of Principles and Standards identified by the National Council of Teachers of Mathematics (1989).

Supplements existing curricula

One-to-one correspondence, addition, subtraction, multiplication, division, fractions, least common denominators, greatest common factors and factoring are key components of all math curriculums. More practice time is necessary to ensure competence in basic arithmetic. *Math&Movement* activities are designed to fit into transitional times, therefore not taking time away from other core subjects.

After children reach closure in their math facts, they have an increased ability to understand word problems, estimation, and are able to retain more content from the regular math curriculum.

Easily fits into the school day

The *Math&Movement* program makes it possible to create learning opportunities during non-classroom time such as while standing in line, walking in hallways, transitioning between activities, as well as in physical education classes, after-school programs and school vacations. The possibilities for including *Math&Movement* activities during a child's day are endless.

Allows children to exceed state standards

Children who are introduced to *Math&Movement* activities become confident in their math basics thus allowing them to learn addition, subtraction, multiplication, division, fractions, decimals, percents, factoring and algebra at an earlier age.

In many first grade classes children have loved learning to multiply! In one Kindergarten class, the children learned to skip count by twos so quickly that we introduced skip counting by threes. In a third grade class, the children loved learning algebra and

begged for more and more algebra worksheets. First graders learning multiplication are generally two-years ahead of the traditional age for learning multiplication, greatly exceeding state expectations.

Integrates core subjects

It is often easier to integrate language arts with history and science than to integrate math. One has to be more creative to integrate math. *Math&Movement* integrates easily with PE. Children find it exceedingly pleasurable to count as they engage in their many physical activities.

Engages all learners

How often do you see children begging to do just one more math activity? With *Math&Movement*, children so enjoy designing math movements and performing them that they forget they are practicing math.

In one first grade classroom, one of the boys with a disability spent the entire program seemingly disengaged. When we began the lesson for skip counting by sixes, he surprised me by coming right up to me and announcing that he had an activity. He demonstrated it, and it indeed used the multiples of six. Furthermore, it was a clever activity. He must have thought about this beforehand!

In a third grade class, I was amazed at how quickly the students discovered their own cleverness for inventing *Math&Movement* activities! They begged to pretend they were chipmunks, bunnies, or disco dancers. Who would ever think that a movement needed to include a nice, solid lick of your arm? One first grader insisted that we were tigers and that licking was an essential component of the movement! We named the movement "Tiger Lick!"

Makes math imaginative and creative

Memories of math class for most include the boring drill and repetition of math basics. Unfortunately the repetition is necessary just as it is for beginning readers, but *Math&Movement* adds imagination and creativity to the necessary practice. Once you introduce your students to the movements included in this book, encourage them to create and lead their own movement activities. This allows math practice to become an opportunity for imagination, creativity, cooperation, assertion, responsibility, self-control and leadership.

Is classroom-tested

Four independent elementary schools and over 300 children have participated in activities from the *Math&Movement* program. The cleverest activities included in this

training manual were designed by children for children. The children consistently have the same positive reaction to the *Math&Movement* activities! One boy said, "The movements are my favorite part of math class--I love this!"

Is research-based

Math&Movement incorporates physical exercise, stretching, cross-body movements and yoga. I have also drawn from the work of Paul E. Dennison (brain-gym), Eric Jensen, Howard Gardner, John Ratey and the Waldorf and Montessori teaching philosophies.

In addition, a Northeast Elementary school pilot study, showed a five-fold increase in learning multiples, and first graders learned to multiply and expressed delight in the acquisition of math skills and showed that children as young as six could master multiplication. The ten-week pilot study considered 21 first graders' (ten girls and eleven boys) abilities in skip counting, addition skills, multiplication skills, one-to-one-correspondence, enthusiasm in math, confidence in math and math ability before and after introducing movement activities designed to enhance learning to skip count and multiply.

Of the 21 students, there were seven Asians or Asian-Americans, two African-Americans, and twelve Caucasians. In less than 18 hours of instruction, the first graders learned multiplication up to ten times ten, as well as the basic concepts of square numbers, square roots, fractions, decimals and percents.

Supports equity

All students participate simultaneously in the *Math&Movement* activities. Children from all backgrounds and socio-economic levels can benefit from *Math&Movement* activities, especially those who are kinesthetic learners. Experts believe that a high percentage of children in poverty are kinesthetic learners. *Math&Movement* activities can help eliminate race and class as predictors of success.

In one classroom, three of the students were identified as needing intervention services. These students participated happily along with the other students in the class. The math specialist reported a noticeable increase in math ability and confidence.

After a *Math&Movement* workshop, teachers who attended wrote to me:

I found the workshop very inspiring. I have been doing a session of Math&Movement every day with my students and they are enjoying it! I am sure it will help with their facts.

So far today I have worked with a whole class and a small group and they loved it! One 4th grader, who does not know her facts, was able to skip count by 6's to 36 after doing the Jaguar Tummy Rub and skip hopping for 15 minutes! Thank you so much!

Reinforces math learning while adding additional PE minutes

Your school may be in need of adding additional PE minutes to the schedule. M&M can count. The activities in the Active Math section are designed to give children aerobic exercise. These activities may meet the requirements for additional physical education minutes depending on state regulations. Many state regulations encourage integrating learning core subjects with physical activity. Most states have a procedure to follow. Check your state's website for details.

Builds basic multiplication skill

Generic multiplication skill is at the core of most mathematical thinking and ability. Skip counting skill will enhance multiplication skill and understanding. Rote learning of abstract concepts has low retention value (especially in young children). Mathematical concepts not fully grasped continue to plague the learning of later, more comprehensive mathematical concepts.

Facilitates learning more advanced math concepts

Knowing skip counting greatly facilitates the process of learning multiplication, division, fractions, decimals, percents, factoring and algebra. See Implementation of *Math&Movement* for a step-by-step approach on how to use skip counting to reach closure with multiplication.

Is developmentally appropriate for pre-school children

The importance of imaginative play must be recognized. *Math&Movement* must never be considered a push-down curriculum. Movement is natural and pleasurable for children. *Math&Movement* activities are enjoyable because they see the activities as game. In addition, movement while learning facilitates muscle memory, an important factor with younger children whose abstract thinking skills are not fully developed. Also, the brain chemical dopamine, released when children are enjoying themselves, enhances learning, retention of knowledge and the transfer of learning.

The magic of the *Math&Movement* program is that children become so engaged that they forget they are practicing math. Children are encouraged to use their creative imagination to develop and participate in new movements. In a class full of eighteen or more children, with eighteen unique ideas, your students will receive an abundant amount of math practice.

While visiting a class with young children, I asked my favorite question: who has an idea? Hands immediately popped up all over the room. Their ideas were unique, inspiring and significantly more interesting than the ones I had thought of! To be fair to everyone, each student had a chance to explain their idea for skip counting by twos and have the entire class participate in their idea for a movement. The end result—all the children learned to skip count by twos and felt proud of themselves for the acquisition of this skill.

The teacher benefits along with the students

Teachers who have used this program report that after engaging in the *Math&Movement* activities they felt mentally clear and energized.

The Structure of This Book

The book is organized into the following nine sections:

The Benefits of *Math&Movement*

This section offers a rationale for why the active learning model, *Math&Movement*, benefits students and teachers.

Active Math—Whisper/Loud Movements

Active Math: Whisper/Loud Movements are designed to give your students physical exercise while simultaneously enhancing math ability. Ninety student-generated, classroom-tested activities are included. There are ten movements per number from one through nine.

Active Math—Skip Counting Movements

Active Math: Skip Counting Movements are designed to provide additional physical exercise while learning the multiples. There are over one hundred student-generated, classroom-tested activities included in this section, at least four for each letter of the alphabet.

Sit-Down Math

Sit-Down Math activities are designed for quiet time and involve stretching. There are forty-three activities included.

Tapping at the Table

Tapping at the Table activities are designed to be used in between other activities, while students sit at their desks. There are thirty-six activities.

Hallway Math

Hallway Math activities are designed to be used walking in the hallway to and from lunch, PE, art, music, computer or library. There are twelve activities.

Math and Yoga

Math and Yoga activities incorporate math practice into popular yoga moves. Nine activities are included. Math 'n the Five Tibetan Rites are included in this section.

Activities for the *Math&Movement* Floor Mats and Banners

This section includes over ninety activities that make the active learning with the floor mats and banners enjoyable. Activities are included for the Numberline 1-10 mat, the seven Numberline Hopping mats and the Add/Subtract mat (100 Number Grid).

Implementing *Math&Movement* into the Day

Included in this section are suggestions for times of the day to include *Math&Movement*, how skip counting transfers to multiplication and division mastery and how to enhance math on a day-to-day basis.

Extending the *Math&Movement* program

The Math Buddy Program, *Math&Movement* Night for Parents and Students, A-Penny-A-Problem math-a-thon, After School Math Immersion, Math 'n Tennis camp, Math 'n Summer Camp and Math Resource Centers are offered as suggestions to further enhance the math ability of your students.

In conclusion, the expected outcomes of adopting the *Math&Movement* program are enhanced learning, greater retention, and more enthusiasm of more children. Previously excluded children, like the kinesthetic learner, become engaged in mathematical learning and the increase in physical activity transfers to make learning other subjects easier for your students.

I hope that your students and you will enjoy these activities!

Suzy Koontz

Ithaca, New York
February, 2010

The Whisper/Loud Counting Technique

Many of the activities in this book use the whisper/loud technique, an effective way to reinforce the intervals in the number line for different multiples. This counting technique is as follows:

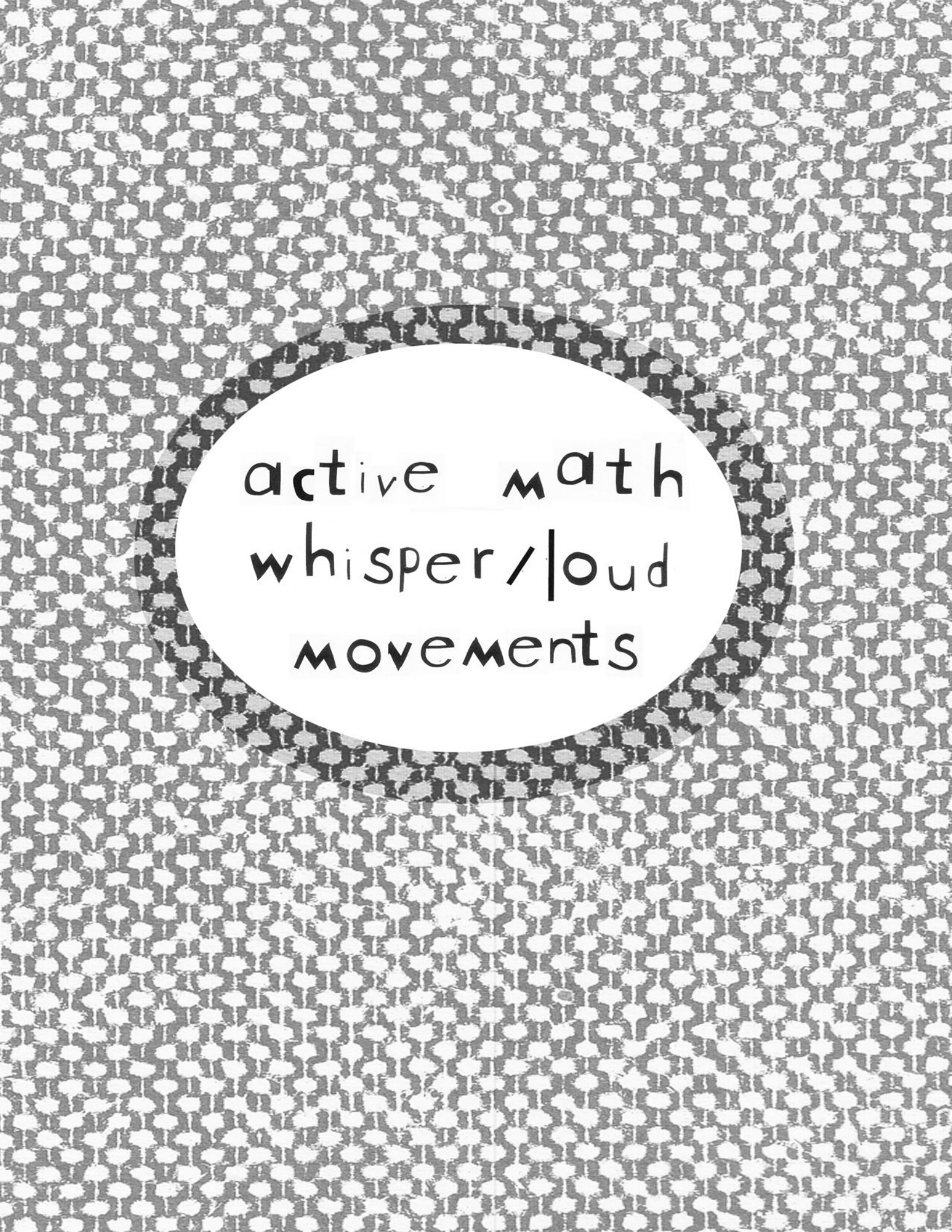
Children whisper (or mouth) the numbers that are not the multiples. When they say the multiple, they say the number louder or shout it. The following is an example of counting by threes using the whisper/loud counting method.

1 (whisper), *2* (whisper), ***3*** (LOUD)

4 (whisper), *5* (whisper), ***6*** (LOUD)

7 (whisper), *8* (whisper), ***9*** (LOUD)

10 (whisper), *11* (whisper), ***12*** (LOUD)


active math
whisper/loud
movements

The Active Math — Whisper/Loud movements are designed to increase a child's heart rate and add additional PE minutes to the school day. All movements are intended to be performed while the child is in control of him/herself. A child who is not able to be in control is asked to sit at a desk until completion of the activity. The purpose of the whisper/loud activities is to strengthen one-to-one correspondence. There are ten movements for each multiple in this section.

Tips:

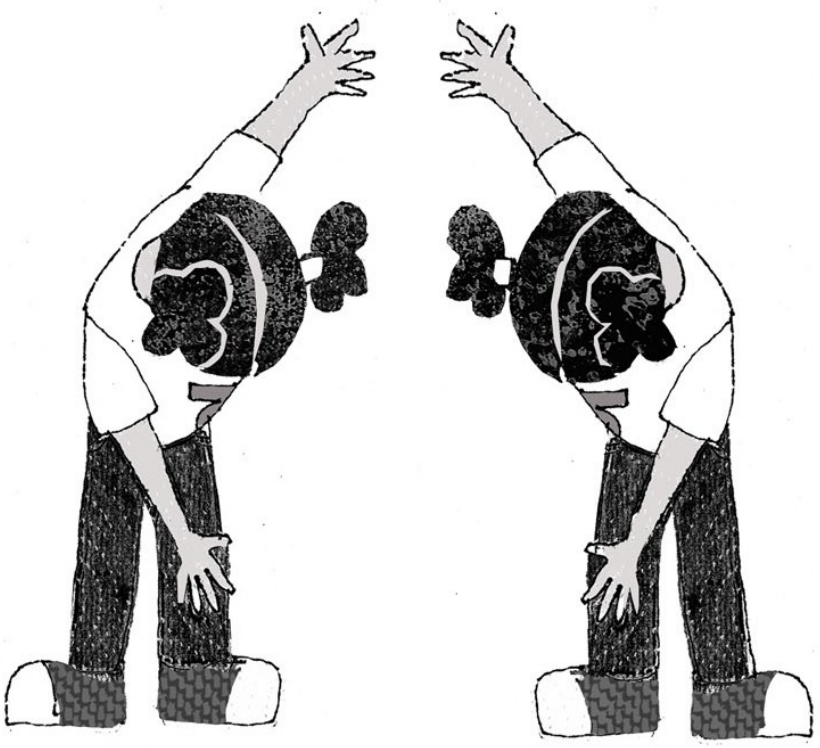
Children love to make sounds associated with the movement (ex. Vroom, vroom for the dirt bike). Allow them do so for 10 seconds or so before beginning counting.

Whenever possible, have children cross over the middle of the body (ex. left arm crossing over to the right side).

Movements for Practicing One-to-One Correspondence

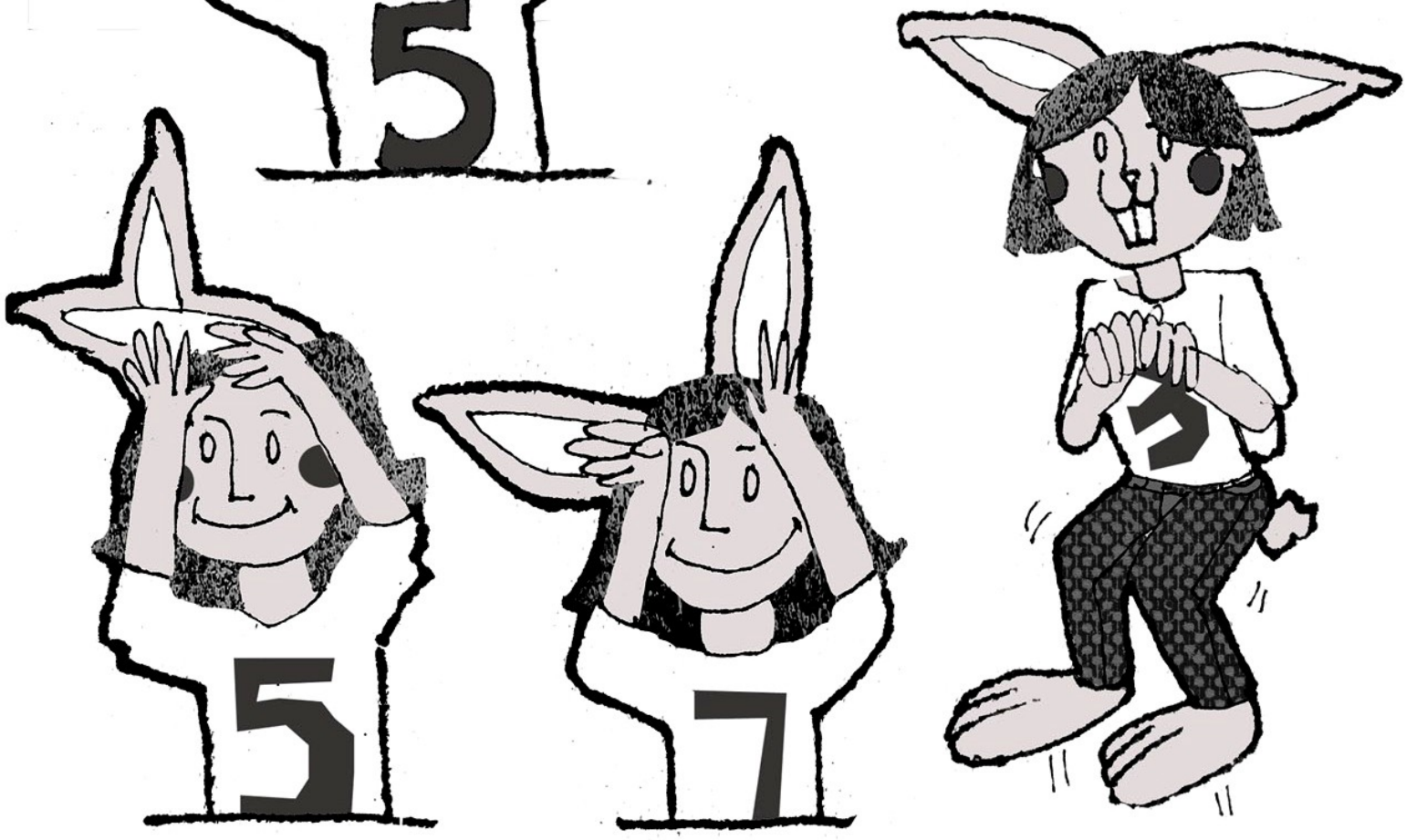
Tiger Twist

Right hand to left foot "one"
Left hand to right foot "two"
Right hand to left knee "three"
Left hand to right knee "four"
Right hand to left hip "five"
Left hand to right hip "six"
Right hand to left shoulder "seven"
Left hand to right shoulder "eight"
Arms straight up sway left "nine"
Sway right "ten"
Right hand to left foot "eleven"
(continue counting pattern to 10, 20, 50 or 100...)



Bunny Hop

Make bunny ears with your hands by placing your hands on forehead (palms forward).
Bend left ear down (bend left-hand fingers forward) “one”
Bend right ear down (bend right-hand fingers forward) “two”
Hop “three”
Continue counting pattern to 10, 20, 50 or 100...)



The Counting Train

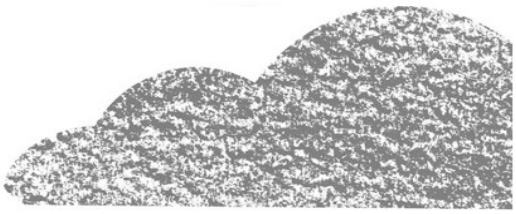
The goal is to have the children count quickly one after another forward and backward. The quicker the counting, the faster the train zooms along the tracks.

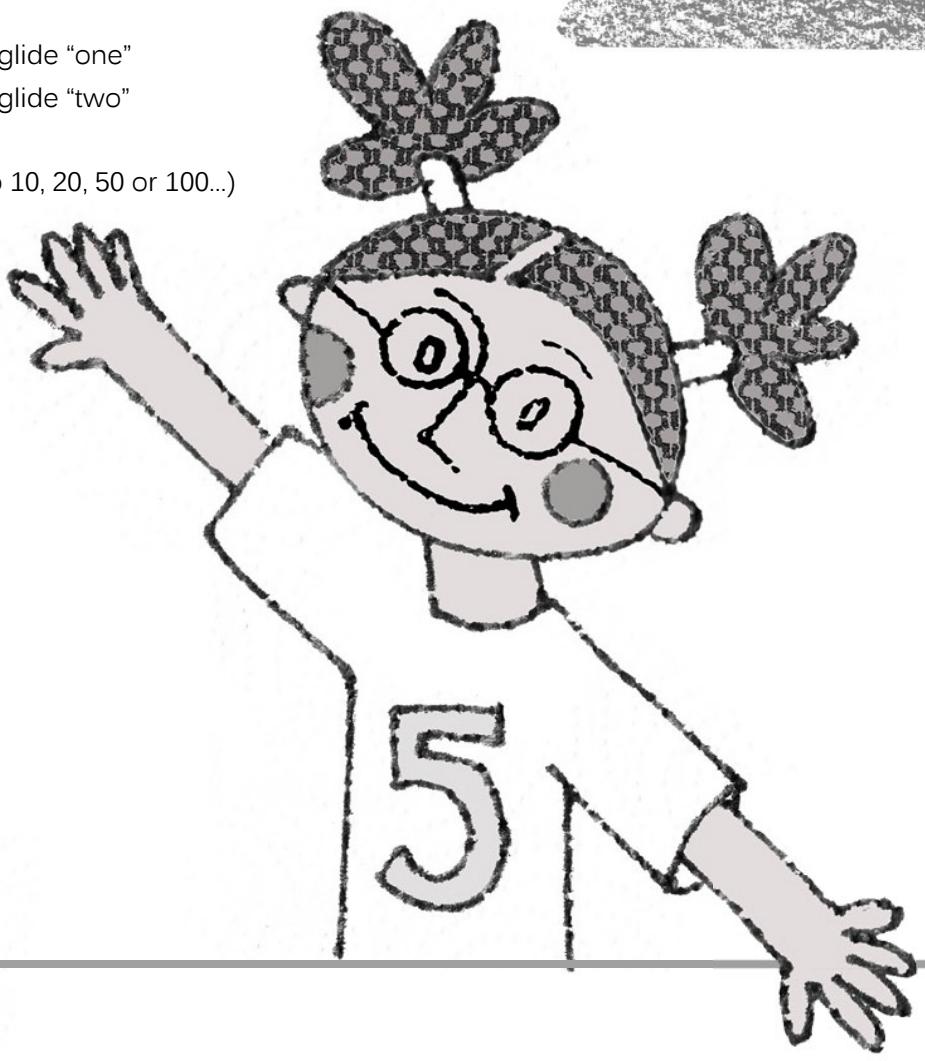
Children stand in a circle. The first student counts “one.” The next student counts “two” etc. At any time, a student can say the next number then raise both hands and say “HALT.” This causes the counting to go back in the other direction. For example, if the counting is “8,” “9,” “10,” and HALT is called, the counting reverses: “9,” “8,” “7…”

Counting continues until all children have had a turn.

Airplane

Make airplane wings with your arms straight out at shoulder level
Lift left arm, lower right arm, glide “one”
Lift right arm, lower left arm, glide “two”
Straight arms, glide “three”
Continue counting pattern to 10, 20, 50 or 100…)





Climbing trees

Pretend to climb trees.
Reach left hand up and cross over right “one”
Reach right hand up and cross over left “two”
Continue counting pattern to 10, 20, 50 or 100...)

Tyrannosaurus Rex

Stomp left foot “one”
Stomp right foot “two”
Grab your prey “three”
Continue counting pattern to 10, 20, 50 or 100...)

Fly Fishing

With two hands, cast rod over to right “one”
With two hands, cast rod over to left “two”
Continue counting pattern to 10, 20, 50 or 100...)

Doggy Dig

Pretend you are dogs digging up the yard.
Dig with left hand “one”
Dig with right hand “two”
Dig with both hands “three”
Continue counting pattern to 10, 20, 50 or 100...)

Swaying Trees

It’s a windy, windy day! Put your arms over your head and pretend your arms are the tree branches blowing in the wind.

Sway to the left “one”
Sway to the right “two”
Sway forwards “three”
Sway backwards “four”
Continue counting pattern to 10, 20, 50 or 100...)

Basketball

Dribble pretend basketball with left hand “one”
Dribble pretend basketball with right hand “two”
Continue counting pattern to 10, 20, 50 or 100...)

Movements for whisper/loud counting by 2's

Numbers to be whispered are in lower case. Ex. "one". Numbers to be said loudly are in capitals with an exclamation point. Ex. "TWO!"

X-Ray

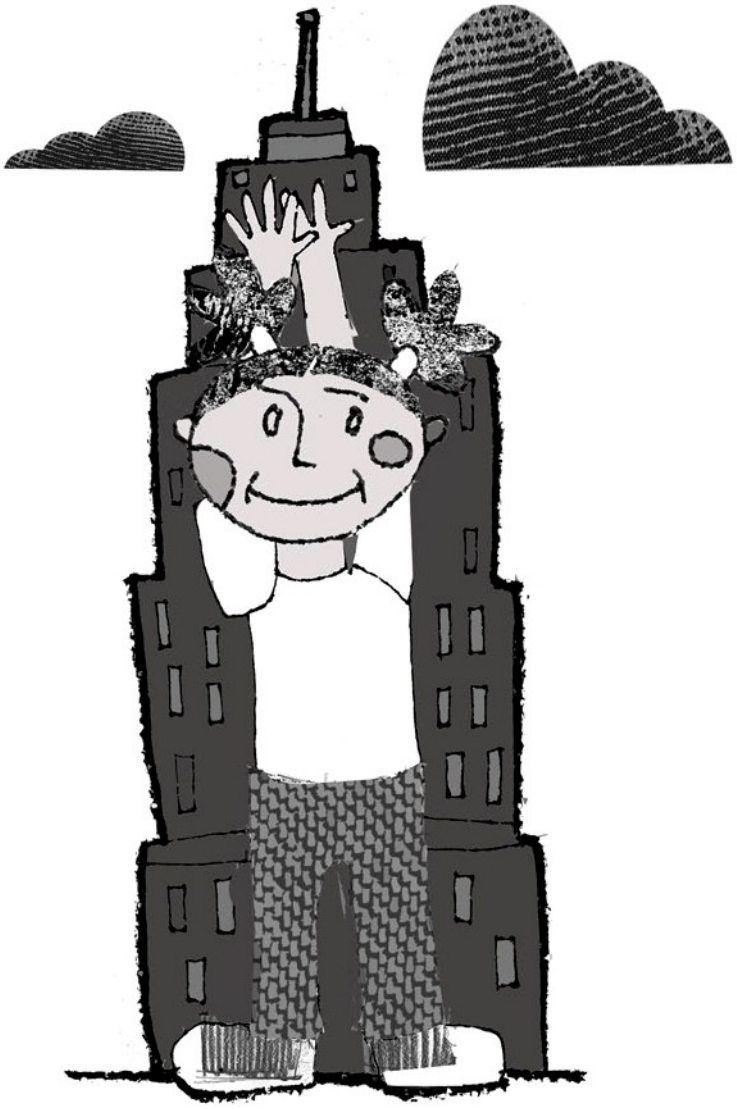
Cross arms over chest "one"
Clap "TWO!"
Cross arms over chest "three"
Clap "FOUR!"
Cross arms over chest "five"
Clap "SIX!"
Cross arms over chest "seven"
Clap "EIGHT!"
Cross arms over chest "nine"
Clap "TEN!"
Cross arms over chest "eleven"
Clap "TWELVE!"
Cross arms over chest "thirteen"
Clap "FOURTEEN!"
Cross arms over chest "fifteen"
Clap "SIXTEEN!"
Cross arms over chest "seventeen"
Clap "EIGHTEEN!"
Cross arms over chest "nineteen"
Clap "TWENTY!"

Jumping for Jupiter

Bend legs in a crouched position
"one"
Jump up and clap arms overhead
"TWO!"
(continue on to twenty...)

Sky Scraper

Stand up tall.
Raise your arms up straight, point palms in and fingers pointing towards the sky (i.e. Make parallel lines with your arms. Be sure arms touch the hair on each side of your head), "one"
Clap "TWO!"
(continue on to twenty...)



Race Car

Hands on steering wheel, steer left “one”
Clap “TWO!”
(continue on to twenty...)

Dirt Bike

Rev your motor with your hands “one”
Clap “TWO!”
(continue on to twenty...)

Praying Mantis

Arms bent at elbows so hands are at shoulder-level,
raise one leg with knee bent “one”
Clap, lower leg simultaneously, “TWO!”
(continue on to twenty...)

Flamingo Flaunt

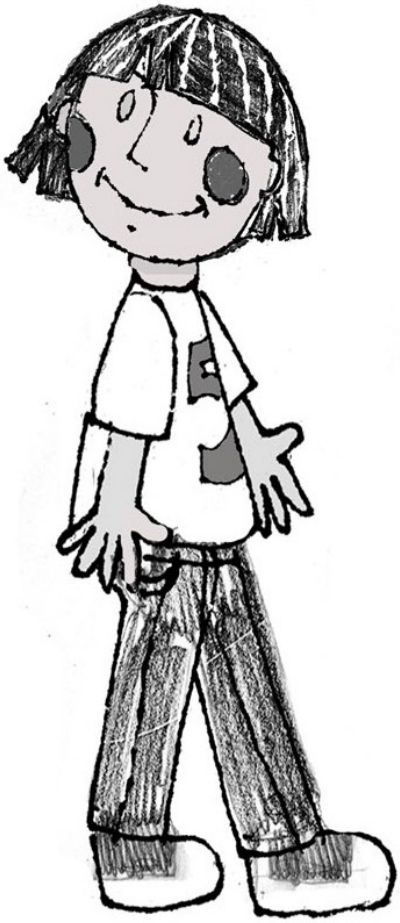
Raise your leg and rest it against opposite knee,
balance as you raise wings to side “one”
Clap and lower leg simultaneously, “TWO!”
(continue on to twenty, alternating legs...)

Chicken

Make chicken wings
Flap “one”
Clap “TWO!”
(continue on to twenty...)

Doggy Dig

Dig “one”
Clap “TWO!”
(continue on to twenty...)



Time to Clean Up

Sit on the floor, with soles of the feet together and tucked in so that your legs form wings
Bend over and pick up something from the floor “one”
Stand up straight “TWO!”
(continue on to twenty...)

Movements for whisper/loud counting by 3's

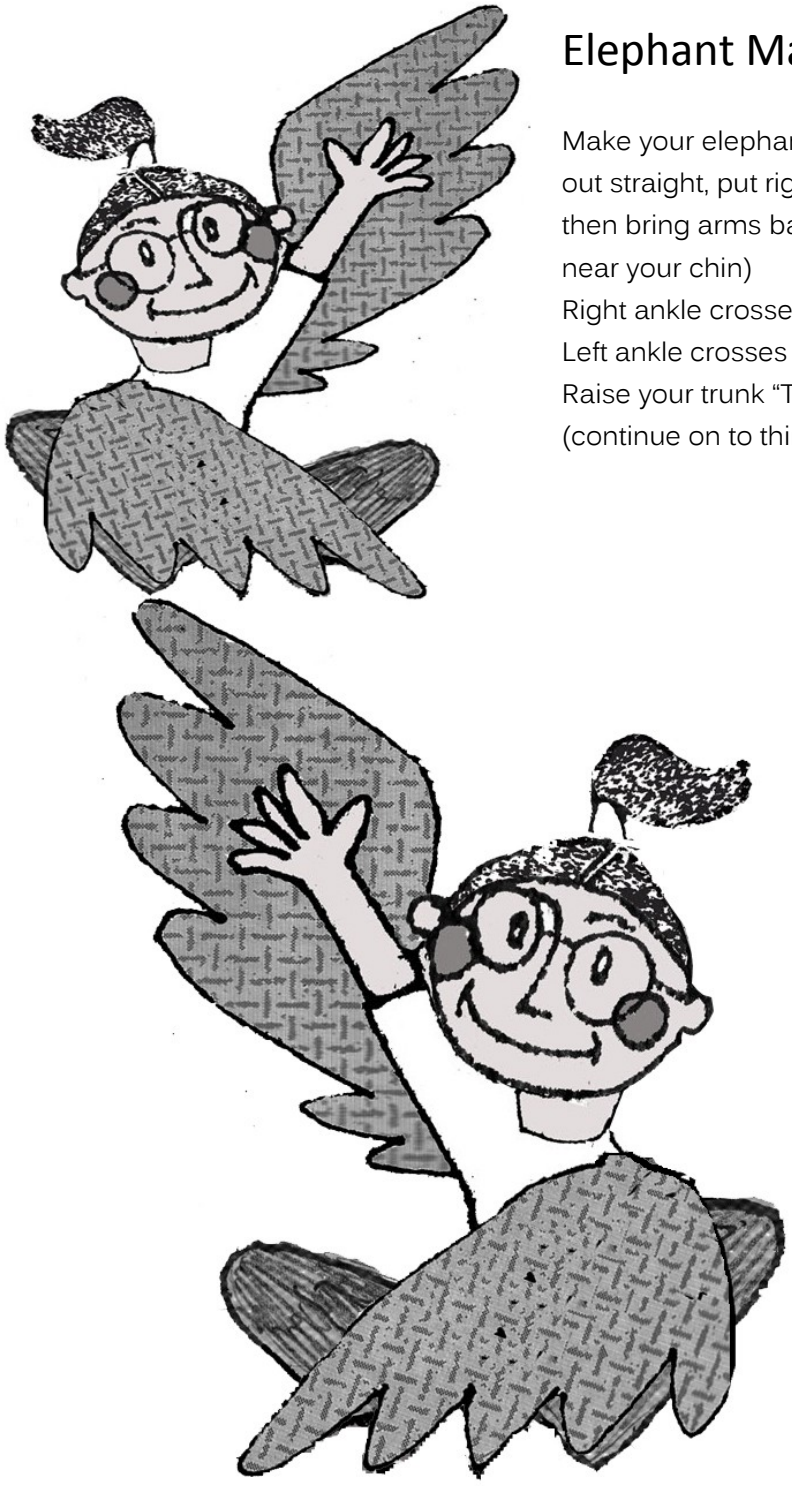
Numbers to be whispered are in lower case. Ex. "one". Numbers to be said loudly are in capitals with an exclamation point. Ex. "THREE!"

Cat Scratch

Pretend to be a cat and get your claws out.
Claw left "one"
Claw right "two"
Clap "THREE!"
Claw left "four"
Claw right "five"
Clap "SIX!"
Claw left "seven"
Claw right "eight"
Clap "NINE!"
Claw left "ten"
Claw right "eleven"
Clap "TWELVE!"
Claw left "thirteen"
Claw right "fourteen"
Clap "FIFTEEN!"
Claw left "sixteen"
Claw right "seventeen"
Clap "EIGHTEEN!"
Claw left "nineteen"
Claw right "twenty"
Clap "TWENTY-ONE!"
Claw left "twenty-two"
Claw right "twenty-three"
Clap "TWENTY-FOUR!"
Claw left "twenty-five"
Claw right "twenty-six"
Clap "TWENTY-SEVEN!"
Claw left "twenty-eight"
Claw right "twenty-nine"
Clap "THIRTY!"

Three's Dance Move

Cross right arm and leg over to the left, snap "one"
Cross left hand and leg over to the right and snap "two"
Clap "THREE!"
(continue on to thirty...)



Elephant March

Make your elephant trunk with the brain gym hookup (arms out straight, put right arm over left and clasp palms together, then bring arms back toward body so that clasped hands are near your chin)
Right ankle crosses over left leg “one”
Left ankle crosses over right leg “two”
Raise your trunk “THREE!”
(continue on to thirty...)

Eagle Swoop

Flap left wing “one”
Flap right wing “two”
Swoop down to catch prey. Clap “THREE!”
(continue on to thirty...)

Horse Gallop

Gallop to the left “one”
Gallop to the right “two”
Clap “THREE!”
(continue on to thirty...)

Sleepytime

Hands together, palms touching, like in prayer position
Go to sleep on the left “one”
Go to sleep on the right “two”
Clap “THREE!”
(continue on to thirty...)

Airplane

Arms out like wings
Swoop to the left “one”
Swoop to the right “two”
Clap “THREE!”
(continue on to thirty...)

Dirt Bike

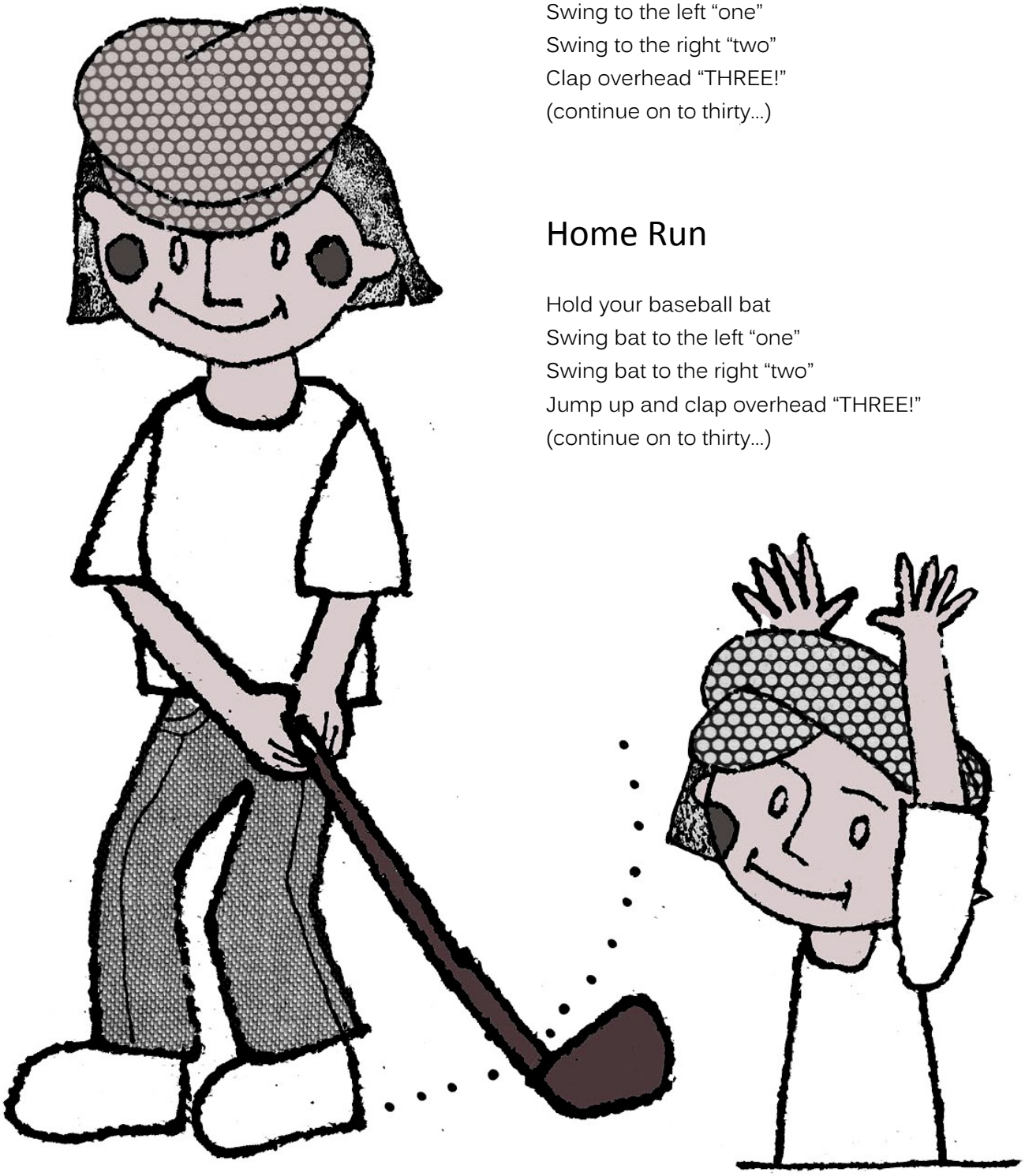
Squeeze handle bar to the left “one”
Squeeze handle bar to the right “two”
Clap “THREE!”
(continue on to thirty...)

Golf Swing

Swing to the left “one”
Swing to the right “two”
Clap overhead “THREE!”
(continue on to thirty...)

Home Run

Hold your baseball bat
Swing bat to the left “one”
Swing bat to the right “two”
Jump up and clap overhead “THREE!”
(continue on to thirty...)



Movements for whisper/loud counting by 4's

Numbers to be whispered are in lower case. Ex. "one". Numbers to be said loudly are in capitals with an exclamation point. Ex. "FOUR!"

Sleepy Trees

We're trees and it's a windy, windy day.
Stretch your branches up and sway to the left "one"
Sway to the right "two"
Your tree goes down to take a nap "three"
Jump up and clap "FOUR!"
Sway to the left "five"
Sway to the right "six"
Your tree goes down to take a nap "seven"
Jump up and clap "EIGHT!"
Sway to the left "nine"
Sway to the right "ten"
Your tree goes down to take a nap "eleven"
Jump up and clap "TWELVE!"
Sway to the left "thirteen"
Sway to the right "fourteen"
Your tree goes down to take a nap "fifteen"
Jump up and clap "SIXTEEN!"
Sway to the left "seventeen"
Sway to the right "eighteen"
Your tree goes down to take a nap "nineteen"
Jump up and clap "TWENTY!"
Sway to the left "twenty-one"
Sway to the right "twenty-two"
Your tree goes down to take a nap "twenty-three"
Jump up and clap "TWENTY-FOUR!"
Sway to the left "twenty-five"
Sway to the right "twenty-six"
Your tree goes down to take a nap "twenty-seven"
Jump up and clap "TWENTY-EIGHT!"
(continue to 40...)

Criss Cross for 4's

This exercise is similar to doing "windmills."
Spread legs, bend over.
Touch right hand to left foot "one"
Touch left hand to right foot "two"
Cross hands over chest, so that right hand is on left shoulder, left hand on right shoulder "three"
Clap "FOUR!"
(continue on to forty...)

4's Twist

Touch right hand to bottom of left foot "one"
Touch left hand to bottom of right foot "two"
Cross hands over chest, so that right hand is
on left shoulder, left hand on right shoulder "three"
Clap "FOUR!"
(continue on to forty...)

The Fours Stretch

Stand up straight with arms at sides.
Lean over and touch toes "one"
Touch knees "two"
Put hands on hips "three"
Clap "FOUR!"
(continue on to forty...)

Puffin Moves

Waddle to the left "one"
Waddle to the right "two"
Paddle in the ocean "three"
Clap "FOUR!"
(continue on to forty...)

Doggy Dig

Both paws dig to the left “one”
Dig to the right “two”
Dig in the middle “three”
Clap “FOUR!”
(continue on to forty...)

Basketball

Dribble to the left “one”
Dribble to the right “two”
Shoot up high with both hands “three”
Clap “FOUR!”
(continue on to forty...)

Fishing

Get your rod and cast to the left “one”
Cast to the right “two”
Reel in that fish “three”
Clap “FOUR!”
(continue on to forty...)

Helicopter Twirl

Lift your arms straight up overhead with palms together.
Twirl arms on the left side “one”
Twirl arms on the right side “two”
Twirl in the middle with big circles “three”
Clap “FOUR!”
(continue on to forty...)

Paddle the Canoe

Pretend you are in a canoe.
Paddle to the left “one”
Paddle to the right “two”
Balance yourself “three”
Clap “FOUR!”
(continue on to forty...)

Movements for whisper/loud counting by 5's

Numbers to be whispered are in lower case. Ex. "one". Numbers to be said loudly are in capitals with an exclamation point. Ex. "FIVE!"

5's Twist

Touch right hand to bottom of left foot "one"
Touch left and to bottom of right foot "two"
Touch right elbow to left knee "three"
Touch left elbow to right knee "four"
Clap "FIVE!"
(continue on to fifty...)

Criss Cross for 5's

Spread legs, bend over.
Touch right hand to left foot "one"
Touch left hand to right foot "two"
Touch right hand to left knee "three"
Touch left hand to right knee "four"
Clap "FIVE!"
(continue on to fifty...)

Clever Kitten

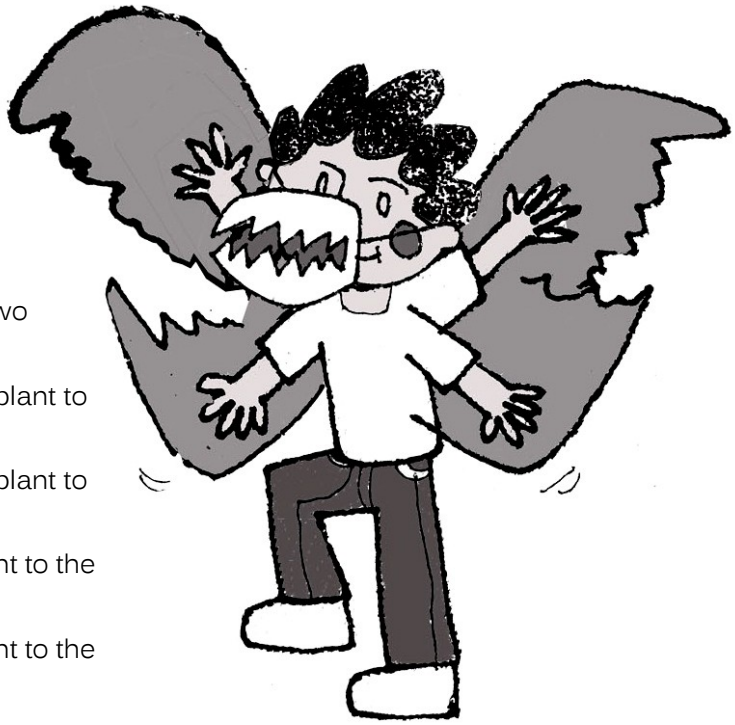
Get out your kitten claws!
Scratch with your left hand "one"
Scratch with your right hand "two"
Put your hands on your hips.
Wag your kitten tail to the left "three"
Wag your kitten tail to the right "four"
Clap "FIVE!"
(continue on to fifty...)

Tyrannosaurus Rex

Reach out and grab your prey with your left hand “one”
Reach out and grab your prey with your right hand “two”
Eat your prey with your left hand “three”
Eat your prey with your right hand “four”
Clap “FIVE!”
(continue on to fifty...)

Pterodactyl

Make Pterodactyl wings with your outstretched arms.
Raise left arm and lower right “one”
Raise right arm and lower left “two”
With both hands, pounce down to ground to left “three”
With both hands, pounce down to ground to right “four”
Clap “FIVE!”
(continue on to fifty...)



Brontosaurus

Make the Brontosaurus’s long neck with your two outstretched arms.
Reach down with your long neck and nibble a plant to the left “one”
Reach down with your long neck and nibble a plant to the right “two”
Reach up with your long neck and nibble a plant to the left “three”
Reach up with your long neck and nibble a plant to the right “four”
Clap “FIVE!”
(continue on to fifty...)

Set the Table

Lay out the napkin with left hand “one”
Lay out the fork with left hand “two”
Lay out the knife with right hand “three”
Lay out the spoon with right hand “four”
Clap “FIVE!”
(continue on to fifty...)

Tie Your Shoes

Bend over left foot and tie shoe with left hand “one” then with right hand “two”
Bend over right foot and tie shoe with left hand “three” then with right hand “four”
Clap “FIVE!”
(continue on to fifty...)

Drummers

Make drumsticks with your two hands.
Beat the drum with both hands to left and up “one”
Beat the drum with both hands to right and up “two”
Beat the drum with both hands to left and down “three”
Beat the drum with both hands to right and down “four”
Clap “FIVE!”
(continue on to fifty...)

Ride Your Bike

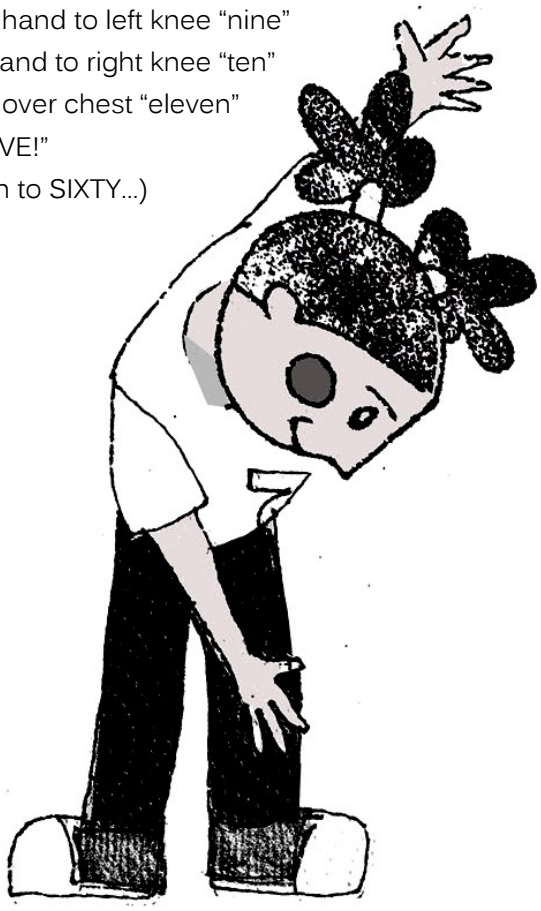
Climb on bike “one”
Balance bike with outstretched arms “two”
Pedal bike “three”
Balance bike with outstretched arms “four”
Clap “FIVE!”
(continue on to fifty...)

Movements for whisper/loud counting by 6's

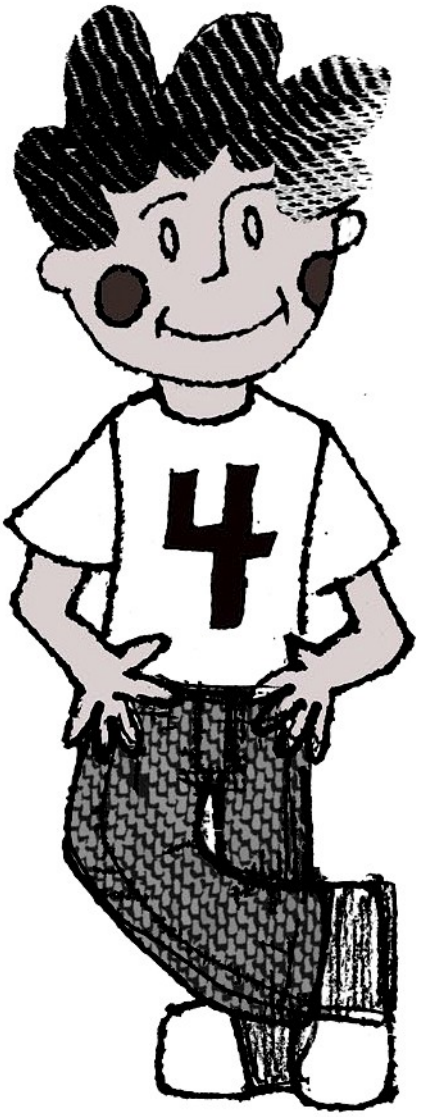
Numbers to be whispered are in lower case. Ex. "one". Numbers to be said loudly are in capitals with an exclamation point. Ex. "SIX!"

Criss Cross for 6

Spread legs, bend over.
Touch right hand to left foot "one"
Touch left hand to right foot "two"
Touch right hand to left knee "three"
Touch left hand to right knee "four"
Cross arms over chest, so that your right hand is on your left shoulder, left hand on right shoulder "five"
Clap "SIX!"
Touch right hand to left foot "seven"
Touch left hand to right foot "eight"
Touch right hand to left knee "nine"
Touch left hand to right knee "ten"
Cross arms over chest "eleven"
Clap "TWELVE!"
(continue on to SIXTY...)



6's Twist

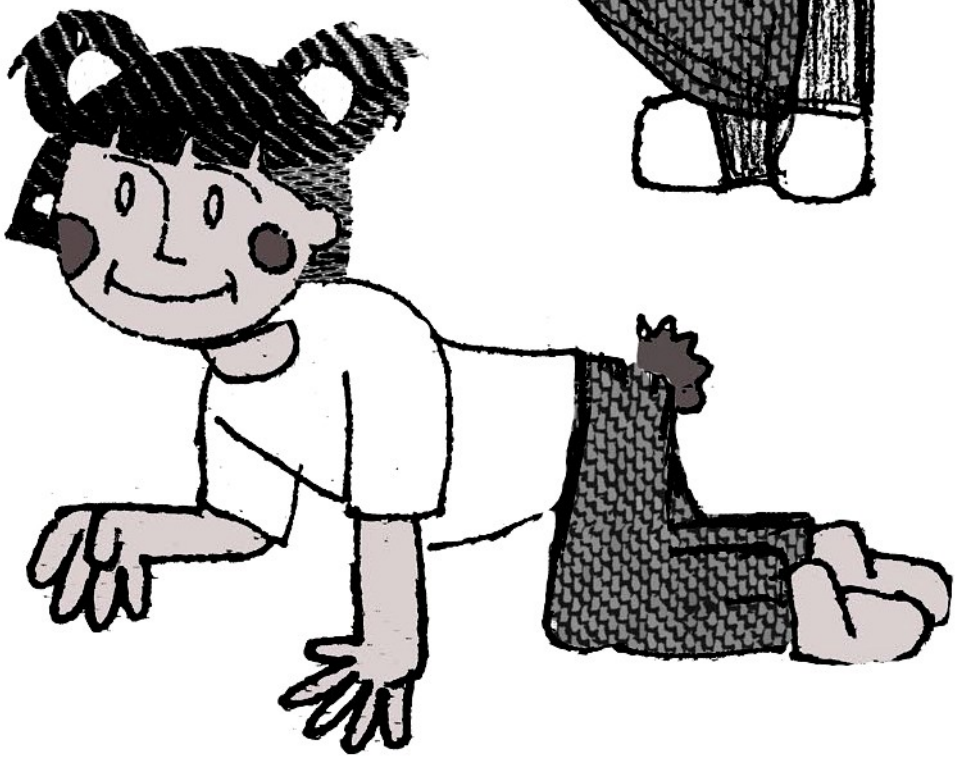


Touch right hand to bottom of left foot "one"
Touch left hand to bottom of right foot "two"
Touch right elbow to left knee "three"
Touch left elbow to right knee "four"
Cross hands over chest, so that right hand is on left shoulder, left hand on right shoulder "five"
Clap "SIX!"
(continue on to sixty...)

Jaguar Tummy Rub

Put your hands on your hips.
Cross right ankle over left leg "one"
Cross left ankle over right leg "two"
Wag your tail to the left "three"
Wag your tail to the right "four"
Rub the tummy "five
Clap "SIX!"
(continue on to sixty...)

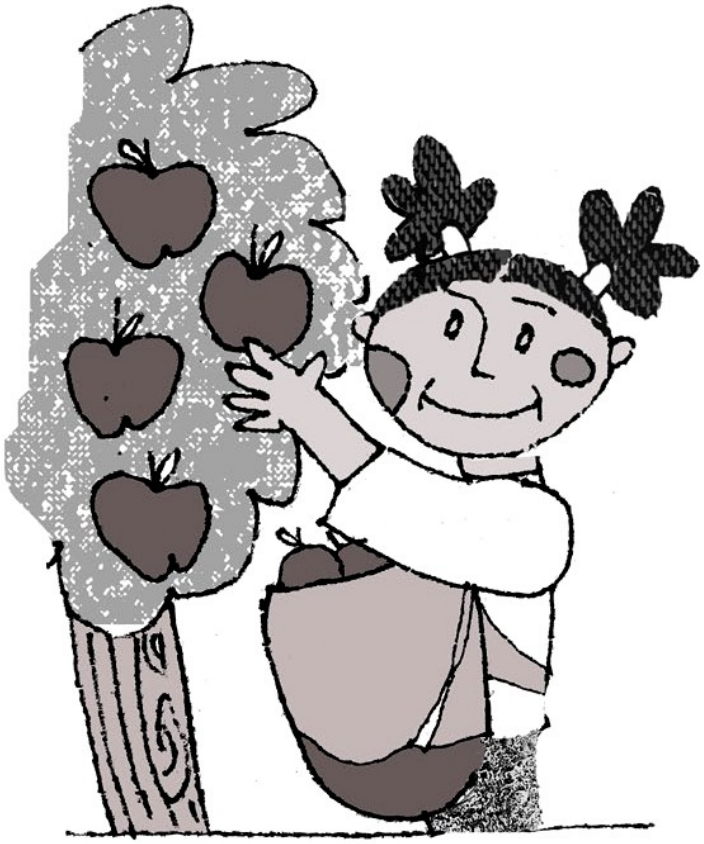
Bear Scratch



Get down on all fours.
Lift left paw "one"
Lift right paw "two"
Lift back left paw "three"
Lift back right paw "four"
Scratch "five"
Clap "SIX!"
(continue on to sixty...)

Chimpanzee Flick

Climb left “one”, climb right “two”
Twist left “three”, twist right “four”
Flick the flea “five”
Clap “SIX!”
(continue on to sixty...)



Donkey Kick

Get down on all fours.
Stomp left front hoof “one”
Stomp right hoof “two”
Stomp back left hoof “three”
Stomp back right hoof “four”
Kick both legs up “five”
Clap “SIX!”
(continue on to sixty...)

Apple Picking

Left hand crosses over up high to pick an apple “one”
Right hand crosses over up high to pick an apple “two”
Left hand crosses over at chest level “three”
Right hand crosses over at chest level “four”
Take a bite “five”
Clap “SIX!”
(continue on to sixty...)

Making Lemonade

Left hand crosses over to pick a lemon “one”
Right hand crosses over to pick a lemon “two”
Cross over to squeeze it left “three”
Cross over to squeeze it right “four”
Take a drink “five”
Clap “SIX!”
(continue on to sixty...)

Clean the house

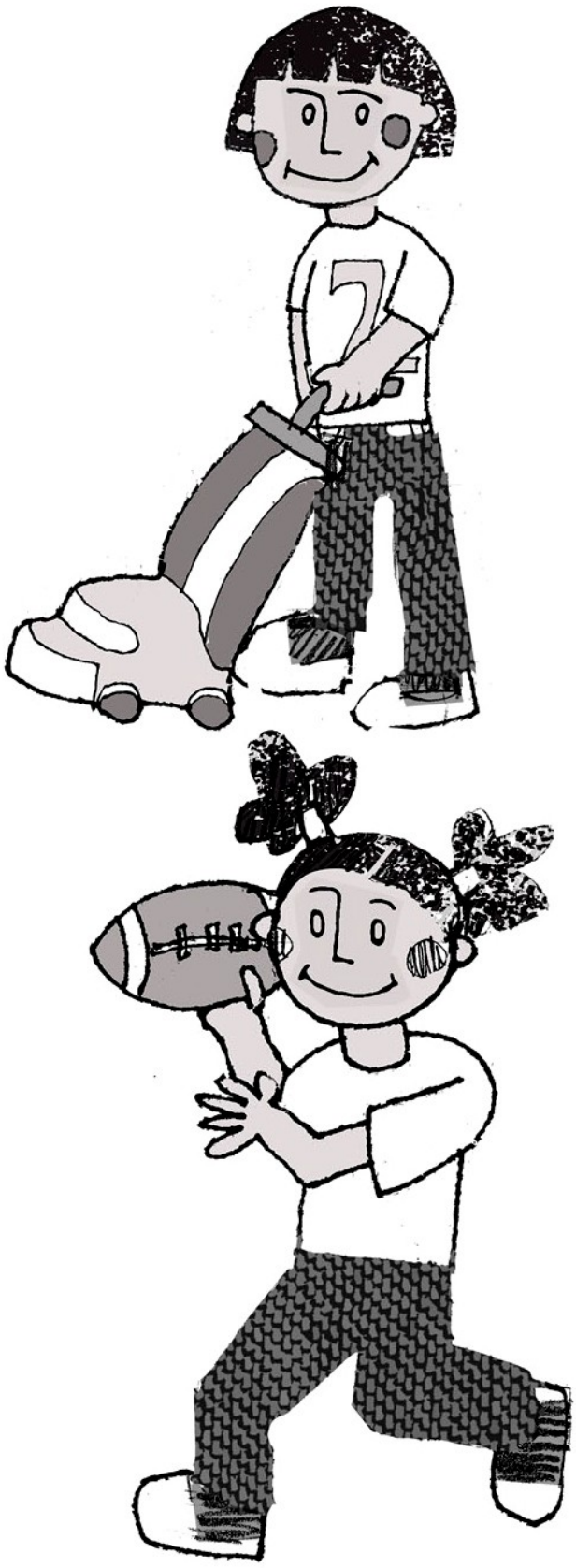
Right hand vacuums to the left “one”
Left hand vacuums to the right “two”
Right hand dusts up high left “three”
Left hand dusts up high right “four”
Wipe brow with back of hand “five”
Clap “SIX!”
(continue on to sixty...)

Volleyball

Bump the ball to the left “one”
Bump the ball to the right “two”
Set to the left “three”
Set to the right “four”
Spike “five”
Clap “SIX!”
(continue on to sixty...)

Football

Pass the ball to the left “one”
Pass the ball to the right “two”
Catch the ball on the left “three”
Catch the ball on the right “four”
Run for a touchdown “five”
Clap “SIX!”
(continue on to sixty...)

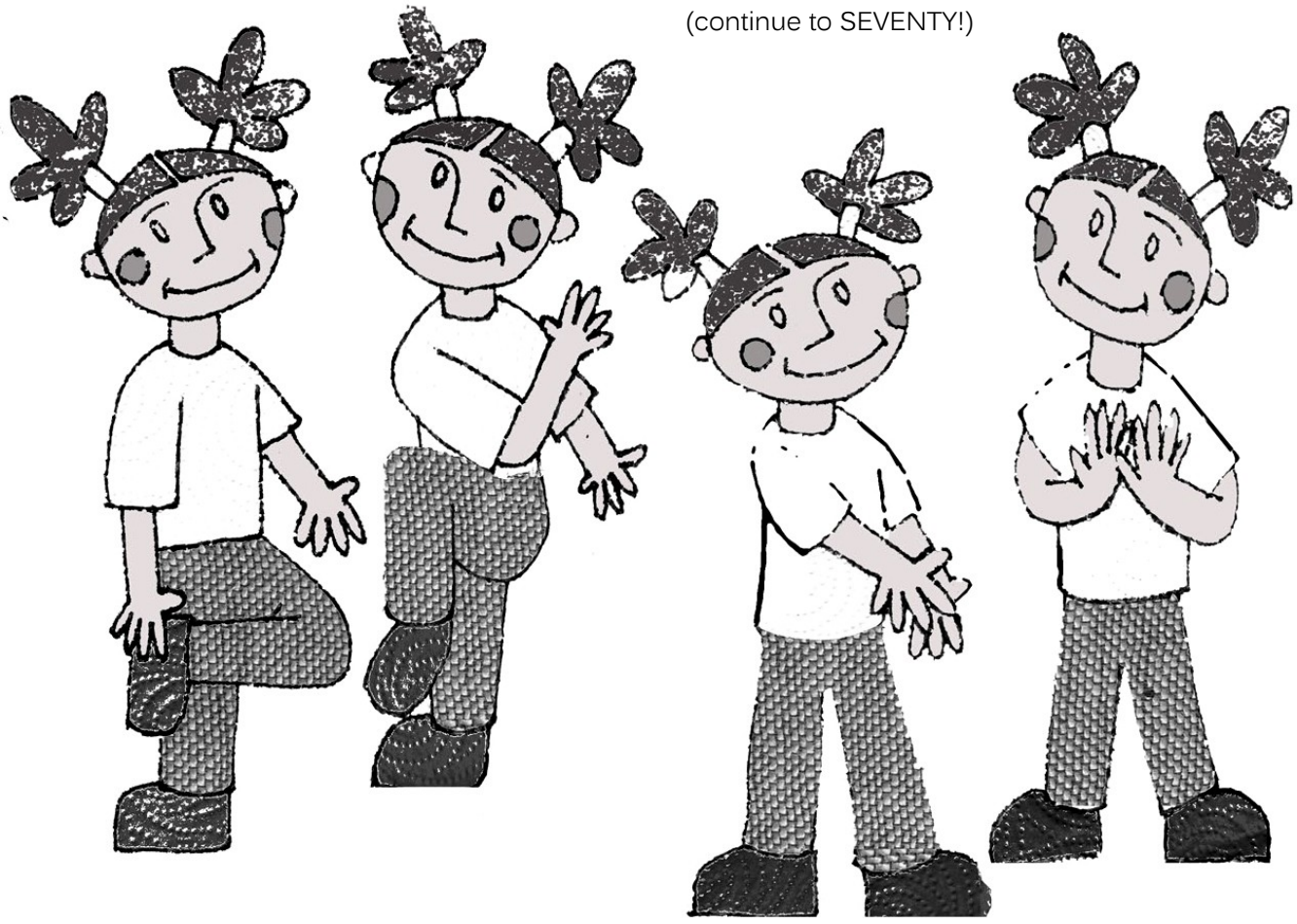


Movements for whisper/loud counting by 7's

Numbers to be whispered are in lower case. Ex. "one". Numbers to be said loudly are in capitals with an exclamation point. Ex. "SEVEN!"

7's Twist

Right hand to bottom of left foot "one"
Left hand to bottom of right foot "two"
Right elbow to left knee "three"
Left elbow to right knee "four"
Twist to the left "five"
Twist to the right "six"
Clap "SEVEN!"
(continue to SEVENTY!)



Criss Cross for 7's

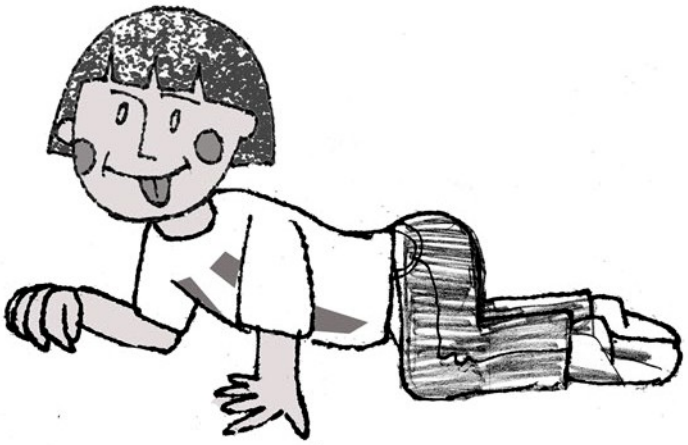
Spread legs, bend over.
Right hand to left foot "one"
Left hand to right foot "two"
Right hand to left knee "three"
Left hand to right knee "four"
Right hand to left hip "five"
Left hand to right hip "six"
Clap "SEVEN!"
(continue on to seventy...)

Gorilla Games

Climb a tree to the left "one"
Climb a tree to the right "two"
Beat your chest (right fist to left shoulder) "three"
Beat your chest (left fist to right shoulder) "four"
Pick a banana "five"
Pick a banana "six"
Clap "SEVEN!"
(continue on to seventy...)

Kangaroo Konga

Hop forward "one"
Hop backward "two"
Hop to the left "three"
Hop to the right "four"
Pat your joey with your left hand "five"
Pat your joey with your right hand "six"
Clap "SEVEN!"
(continue on to seventy...)



Lion Lick

Down on all fours:
Lift front left leg “one”
Lift front right leg “two”
Lift back left leg “three”
Life back right leg “four”
Pretend to lick your left front leg “five”
Pretend to lick your right front leg “six”
Clap “SEVEN!”
(continue on to seventy...)

Fly Fishing

Clasp hands around your fishing rod up high
Cast to the left “one”
Cast to the right “two”
Cast sideways to the left “three”
Cast sideways to the right “four”
Cast from down low coming up left “five”
Cast from down low coming up right “six”
Clap “SEVEN!”
(continue on to seventy...)

Pillow Fight

Hold onto your pillow up high
Hit above to the left “one”
Hit above to the right “two”
Hit waist level left “three”
Hit waist level right “four”
Hit down low left “five”
Hit down low right “six”
Clap “SEVEN!”
(continue on to seventy...)

Book Report

Choose a book to the left “one”
Choose a book to the right “two”
Read a book in your left hand “three”
Read a book a book in your right hand “four”
Write the report with your left hand “five”
Write the report with your right hand “six”
Clap “SEVEN!”
(continue on to seventy...)

Hockey

Hit the puck to the left “one”
Hit the puck to the right ‘two”
Skate the left foot across to the right “three”
Skate the right foot “four”
High five to the left “five”
High five to the right “six”
Clap “SEVEN!”
(continue on to seventy...)

Swimming

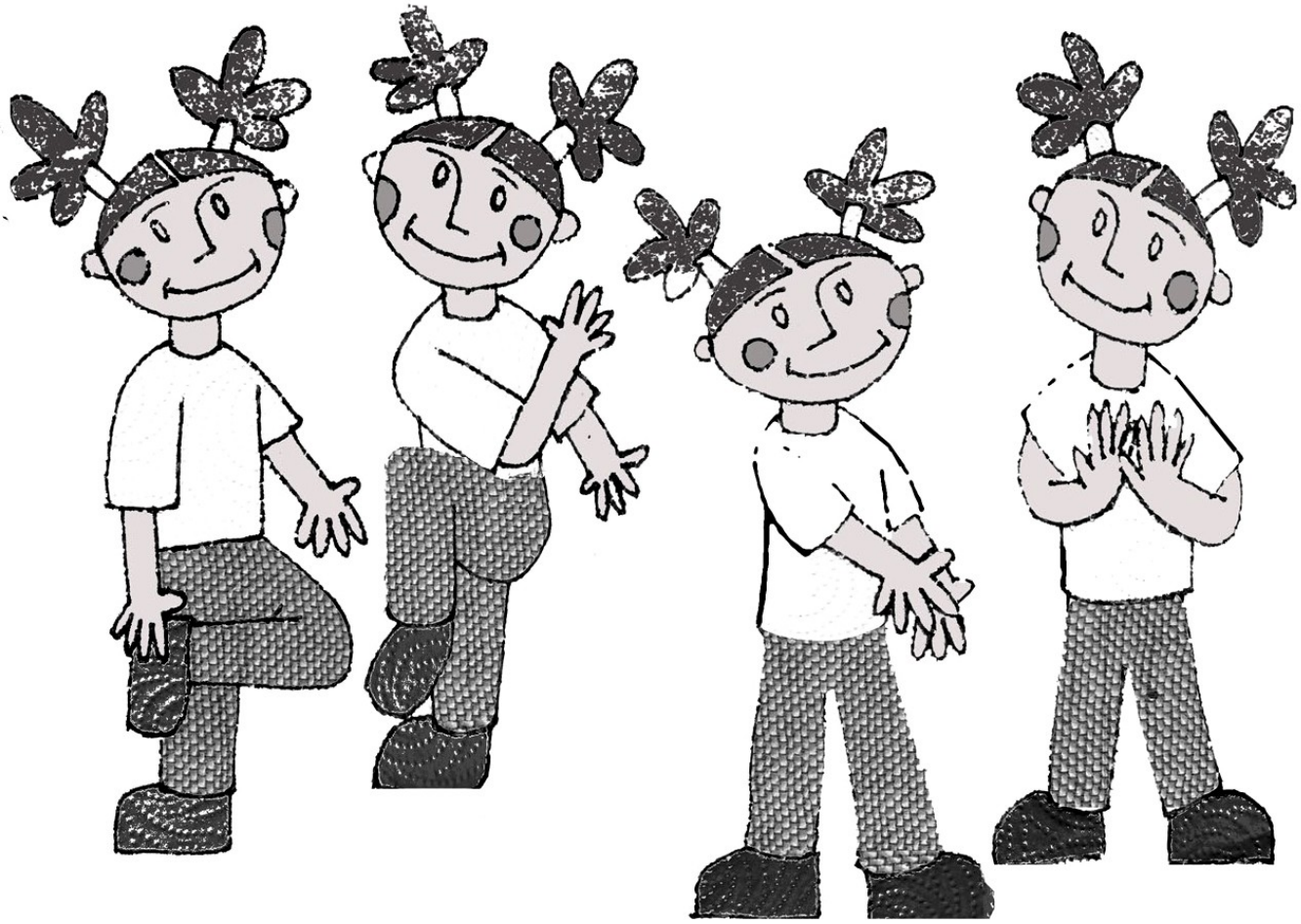
Front stroke with left arm “one”
Front Stroke with right arm “two”
Back Stroke with left arm “three”
Back Stroke with right arm “four”
Side Stroke with left arm “five”
Side Stroke with right arm “six”
Clap “SEVEN!”
(continue on to seventy...)

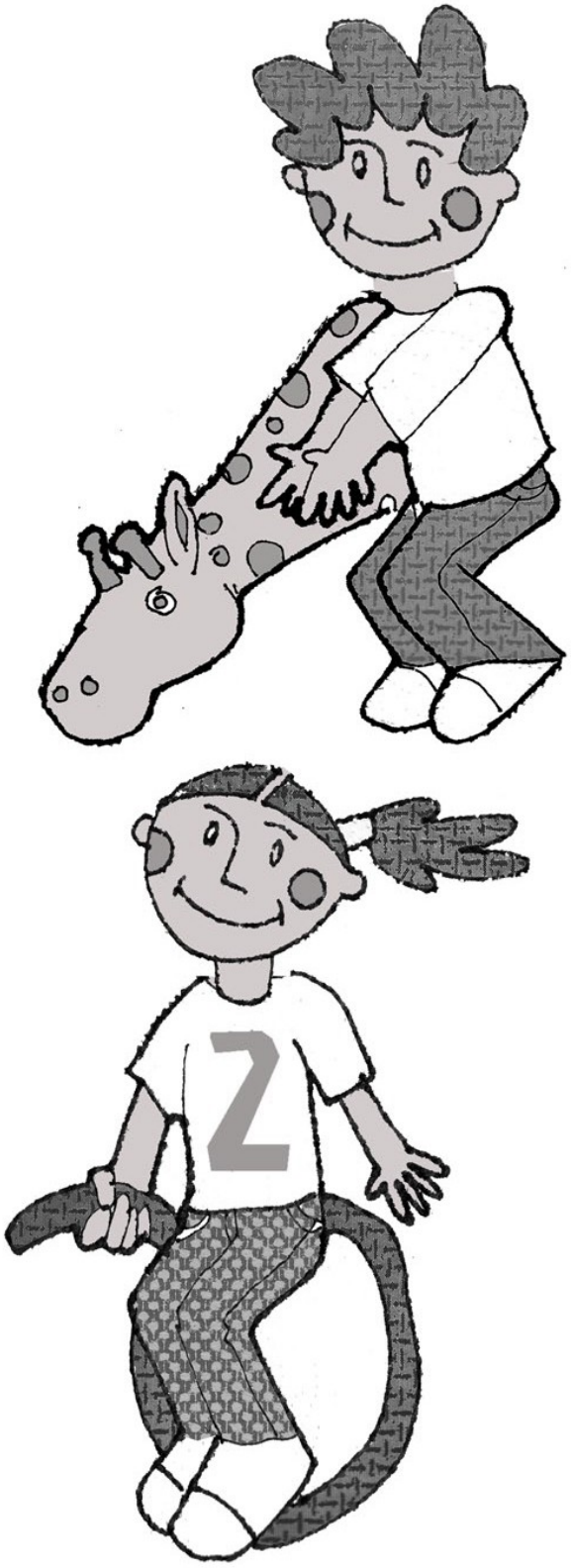
Movements for whisper/loud counting by 8's

Numbers to be whispered are in lower case. Ex. "one". Numbers to be said loudly are in capitals. Ex. "EIGHT!"

8's Twist

Right hand to bottom of left foot "one"
Left hand to bottom of right foot "two"
Right elbow to left knee "three"
Left elbow to right knee "four"
Twist to the left "five"
Twist to the right "six"
Cross arms over chest "seven"
Clap "EIGHT!"
(continue to EIGHTY!)





Criss Cross for 8's

Spread legs, bend over.
Right hand to left foot "one"
Left hand to right foot "two"
Right hand to left knee "three"
Left hand to right knee "four"
Right hand to left hip "five"
Left hand to right hip "six"
Cross arms over chest "seven"
Clap "EIGHT!"
(continue on to eighty...)

Giraffe in the Jungle

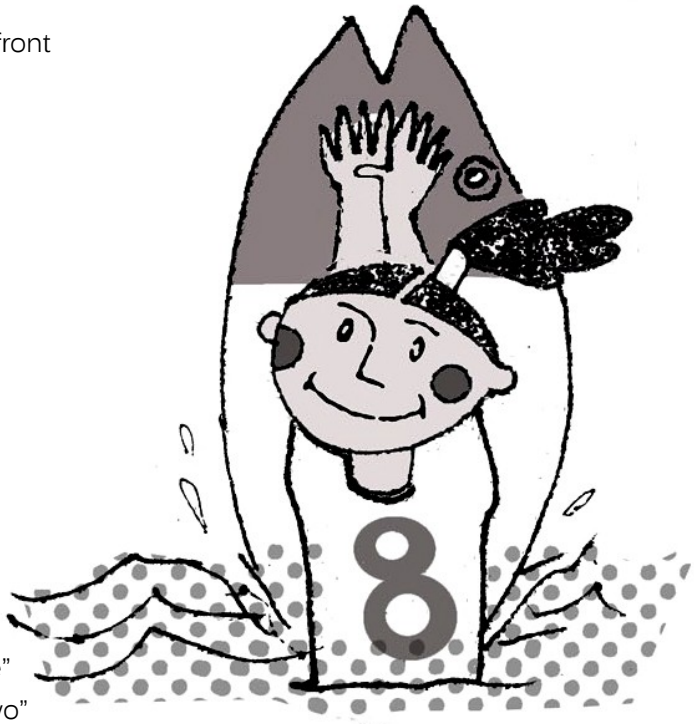
Legs apart, Arms stretched up overhead, fingers clasped together, to make a long neck
Cross Right ankle over left "one"
Cross left ankle over right "two"
Reach left to get a leaf "three"
Reach right to get a leaf "four"
Reach down left to get a leaf "five"
Reach down right to get a leaf "six"
Bend down to get a drink "seven"
Clap "EIGHT!"
(continue on to eighty...)

Tiger Tail Twirl

Hold tail in your hand and twirl it around
Jump over tail to the left "one"
Jump over tail to the right "two"
Swing tail to the left "three"
Swing tail to the right "four"
Wag the tail to the left "five"
Wag the tail to the right "six"
Stroke the tail"seven"
Clap "EIGHT!"
(continue on to eighty...)

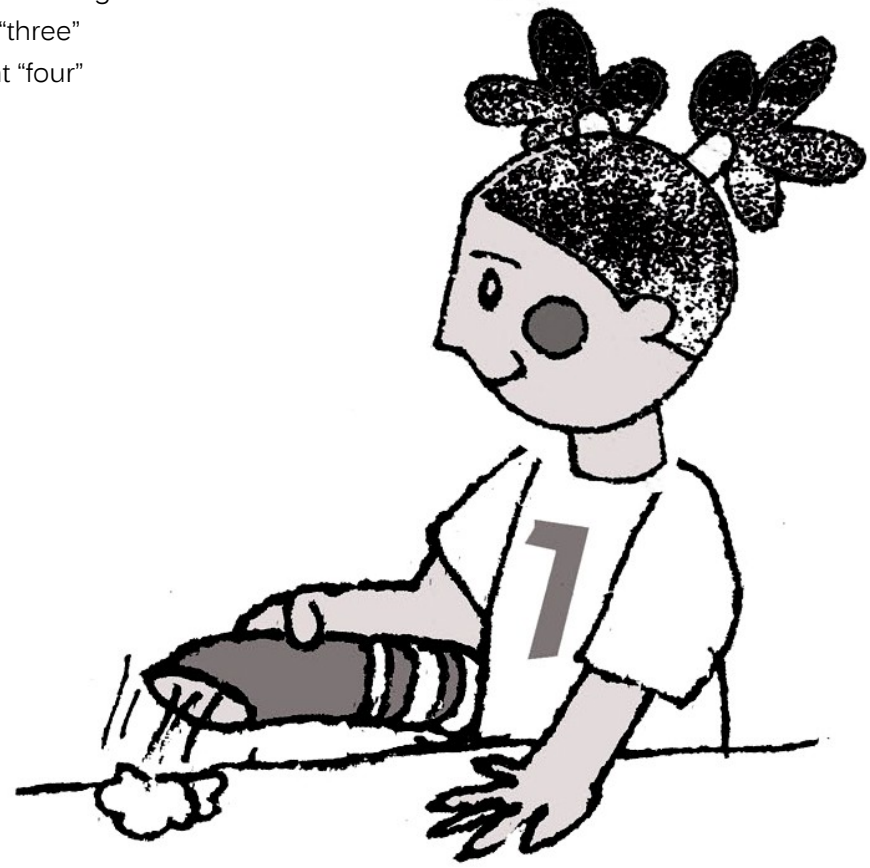
Flashing Fish

Put hands, palms together in prayer position, out front
Swim down to the left “one”
Swim down to the right “two”
Swim to the side left “three”
Swim to the side right “four”
Swim up left “five”
Swim up right “six”
Jump straight up out of water “seven”
Clap “EIGHT!”
(continue on to eighty…)



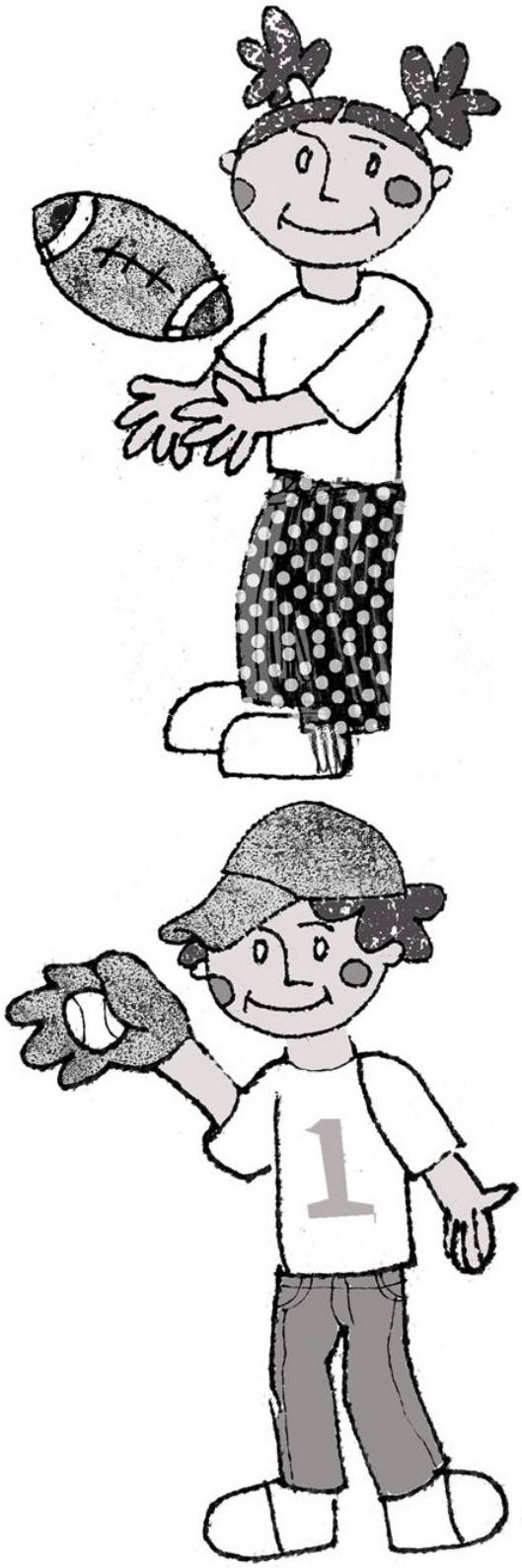
Cherry Pie

Cross over reach up high to pick cherries left “one”
Cross over reach up high to pick cherries right “two”
Cross over to pit cherries to the left “three”
Cross over to pit cherries to the right “four”
Pat the dough left “five”
Pat the dough right “six”
Take a bite “seven”
Clap “EIGHT!”
(continue on to eighty…)



Clean Car

Pick up trash left “one”
Pick up trash right “two”
Wash windows left “three”
Wash windows right “four”
Vacuum the car left “five”
Vacuum the car right “six”
Wipe your brow “seven”
Clap “EIGHT!”
(continue on to eighty…)



Tennis

Forehand stroke to the left “one”
Back hand stroke to the left “two”
Volley stroke left “three”
Volley stroke right “four”
First serve left “five”
Second serve right “six”
Ready position “seven”
Clap “EIGHT!”
(continue on to eighty...)

Football for Eights

Throw the ball to the left “one”
Throw the ball to the right “two”
Block to the left “three”
Block to the right “four”
Catch the ball left “five”
Catch the ball right “six”
Run in for the touchdown “seven”
Clap “EIGHT!”
(continue on to eighty...)

Baseball

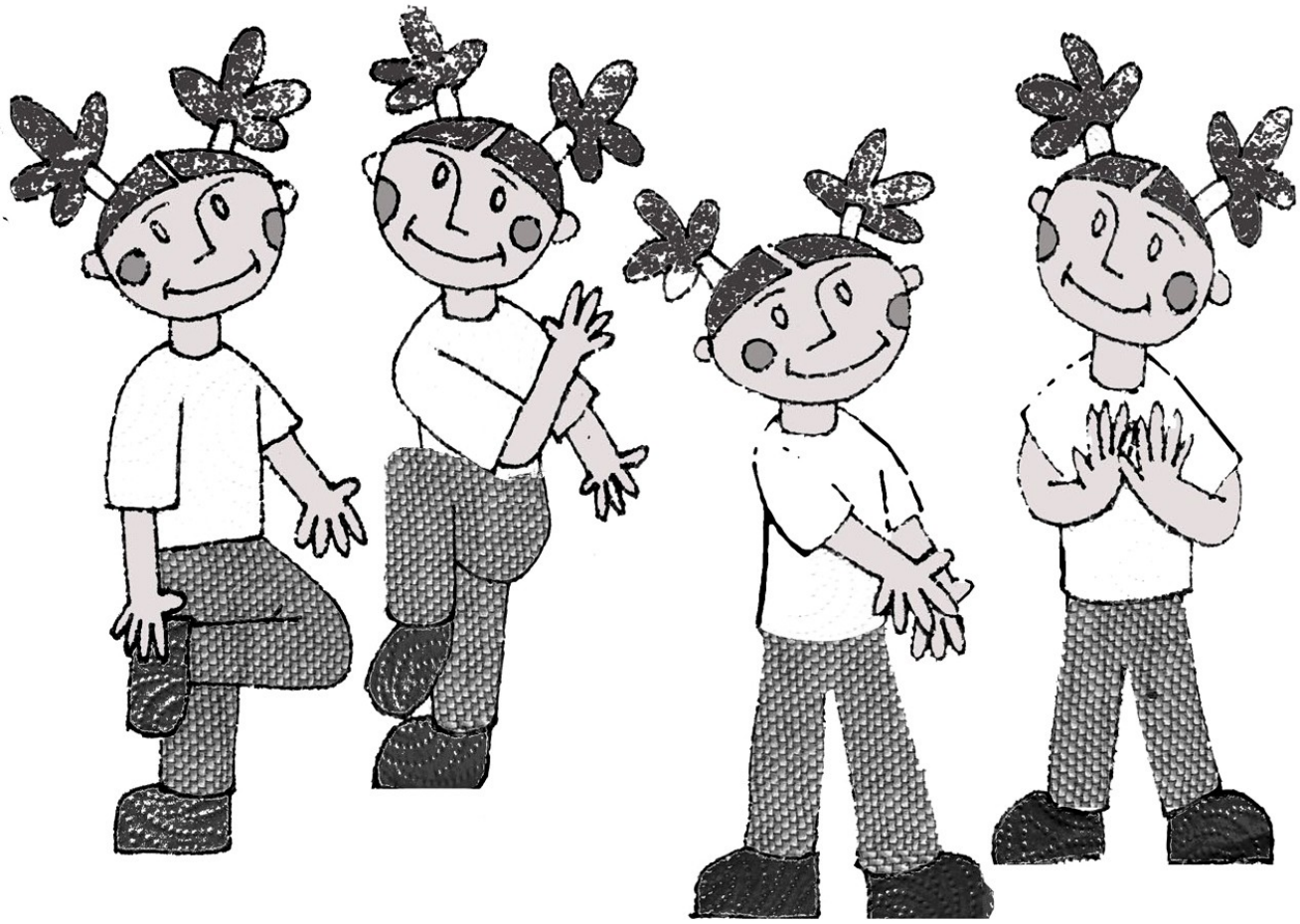
Throw the ball to the left “one”
Throw the ball to the right “two”
Hit the ball to the left “three”
Hit the ball to the right “four”
Catch the ball on the left “five”
Catch the ball on the right “six”
Run to base “seven”
Clap “EIGHT!”
(continue on to eighty...)

Movements for whisper/loud counting by 9's

Numbers to be whispered are in lower case. Ex. "one". Numbers to be said loudly are in capitals. Ex. "NINE!"

9's Twist

Right hand to bottom of left foot "one"
Left hand to bottom of right foot "two"
Right elbow to left knee "three"
Left elbow to right knee "four"
Twist to the left "five"
Twist to the right "six"
Reach up, sway left "seven"
Reach up, sway right "eight"
Clap up high "NINE!"
(continue to NINETY!)



Criss Cross for 9's

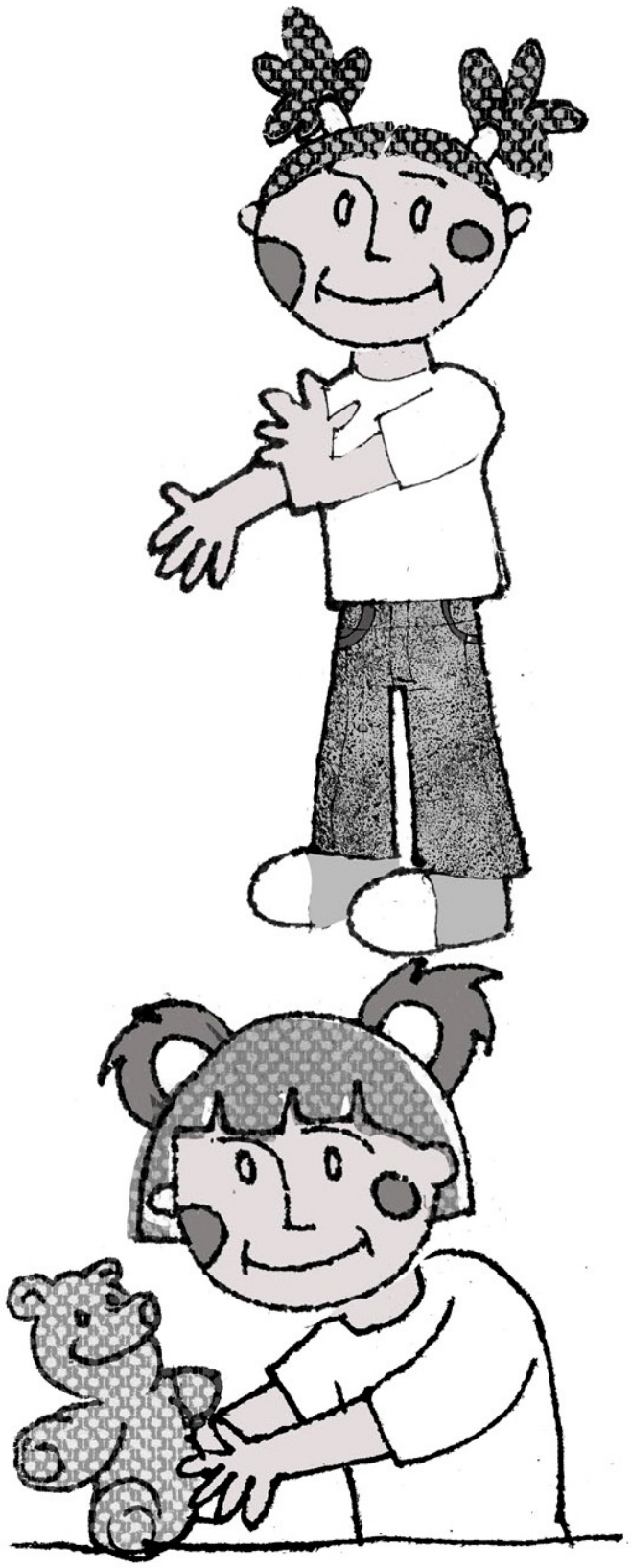
Spread legs, bend over.
Right hand to left foot "one"
Left hand to right foot "two"
Right hand to left knee "three"
Left hand to right knee "four"
Right hand to left hip "five"
Left hand to right hip "six"
Right hand to left shoulder "seven"
Left hand to right shoulder "eight"
Clap "NINE!" (continue to ninety...)

Tarantula Tantrum for 9's

Cross left leg over right and shake it "one"
Cross right leg over left and shake it "two"
Stomp left foot "three"
Stomp right foot "four"
Make fist with hand. Cross left hand over right and shake fist "five"
Make fist with hand. Cross right hand over left and shake fist "six"
Raise left fist in the air and shake it "seven"
Raise right fist in the air and shake it "eight"
Clap "NINE!" (continue to ninety...)

Polar Bear Brunch

Grab a fish with your left hand "one"
Grab a fish with right hand "two"
Eat a fish with your left hand "three"
Eat a fish with your right hand "four"
Play with your cubs, Twist to the left "five"
Play with your cubs, Twist to the right "six"
Take a nap on the left "seven"
Take a nap on the right "eight"
Clap "NINE!" (continue to ninety...)



Zebra Zeal

Gallop forward “one”
Gallop backward “two”
Gallop to the left “three”
Gallop to the right “four”
Rear up “five”
Rear up “six”
Reach for grass “seven”
Eat grass “eight”
Clap “NINE!”
(continue to ninety…)

Panda Push-ups

Down on all fours
Push up left “one”
Push up right “two”
Lift left leg up “three”
Lift right leg up “four”
Chin up (wrap both hands around a pretend bar) to the left “five”
Chin up to the right “six”
Climb a tree “seven”
Climb a tree “eight”
Clap “NINE!” (continue to ninety…)

Food Fight

Throw a banana to the left “one”
Throw a banana to the right “two”
Watch out! Twist to the left “three”
Twist to the right “four”
Throw some noodles to the left “five”
Throw some noodles to the right “six”
Pick food out of your hair left “seven”
Pick food out of your hair right “eight”
Clap “NINE!”
(continue to ninety…)

Berry Picking

Pick berries near your toes to the left “one”
Pick berries near your toes to the right “two”
Pick berries near your knees to the left “three”
Pick berries near your knees to the right “four”
Pick berries near your hips to the left “five”
Pick berries near your hips to the right “six”
Pick berries up high to the left “seven”
Pick berries up high to the right “eight”
Clap “NINE!”
(continue to ninety…)

Basket ball Bump

Dribble to the left “one”
Dribble to the right “two”
Pass to the left “three”
Pass to the right “four”
Catch to the right “five”
Catch to the right “six”
Shoot to the left “seven”
Shoot to the right “eight”
Clap “NINE!”
(continue to ninety…)

Soccer Stars

Run to the left “one”
Run to the right “two”
Kick the ball to the left “three”
Kick the ball to the right “four”
Stop the ball on the left “five”
Stop the ball on the right “six”
Head the ball to the left “seven”
Head the ball to the right “eight”
Clap “NINE!”
(continue to ninety…)