Waldorf Story Poems

In Waldorf education there are variations on how the times tables are taught. However, one constant remains – that we always work from the whole to the parts. But what does that mean and why do we do that?

In Waldorf classrooms different teachers recite the times tables with their classes in different ways. In "The Waldorf Way" David Ruenzel describes his math lesson in this way:

"....The movement, then, is highly purposeful and characterized by a sort of choreographed fastidiousness. Auer's 1st graders stood rhythmically clapping their hands and stomping their feet as they chanted their multiplication tables: 9 is 3 x 3, 12 is 4 x 3, 15 is 5 x 3. "

However, in a Waldorf school in Maine, the lesson sounds a little different. Their lesson is described like this;

"There are recorders being played, verses being recited in unison, feet stomping, hands clapping. "Two times four is eight." (Clap.) "Three times four is 12." (Clap.) "Four times four is 16." (Clap.)" The 26 pupils in Sarah Van Fleet's fourth-grade class are standing in a circle reciting their multiplication tables, a timeless exercise in mathematical memorization, but one with a difference. While reciting, they clap out a rhythm and pass around orange beanbags.

In one case the whole is recited first, in the second case the parts are recited first. So if the parts can come before the whole in recitation what did Rudolph Steiner mean when he spoke about the parts coming before the whole in Waldorf education?

When one speaks of putting the "whole before the part", the order in which the numbers are found in recitation is certainly one way to accomplish that. However, the concept is rooted in a much deeper methodology. The concept of putting the whole before the parts is based on HOW the child learns the basic concepts of addition, subtraction, multiplication and division, not in how they may recite these facts later after they already know them or are practicing them.

In teaching math it is important for the child to be able to view the whole of the concept before they break it into computational parts. Steiner believed that,

"All teaching matter must be intimately connected with life. In counting, each different number should be connected with the child or what the child sees in the environment. Counting and stepping in rhythm. The body counts. The head looks on. Counting with fingers and toes is good (also writing with the

feet). The ONE is the whole. Other numbers proceed from it. Building with bricks is against the child's nature, whose impulse is to proceed from whole to parts, as in medieval thinking. Contrast atomic theory. In real life we have first a basket of apples, a purse of coins. In teaching addition, proceed from the whole. In subtraction, start with minuend and remainder; in multiplication, with product and one factor."

He continues on to say,

"Instead of offering, say, three apples, then four more, and finally another two, and asking the child to add them all together, we begin by offering a whole pile of apples, or whatever is convenient. This would begin the whole operation. Then one calls on two more children and says to the first, "Here you have a pile of apples. Give some to the other two children and keep some for yourself, but each of you must end up with the same number of apples." In this way you help children comprehend the idea of sharing by three. We begin with the total amount and lead to the principle of division. Following this method, children will respond and comprehend this process naturally. According to our picture of the human being, and in order to attune ourselves to the children's nature, we do not begin by adding but by dividing and subtracting. Then, retracing our steps and reversing the first two processes, we are led to multiplication and addition. Moving from the whole to the part, we follow the original experience of number, which was one of analyzing, or division, and not the contemporary method of synthesizing, or putting things together by adding."

It is interesting that using this method division is then seen to Waldorf students as *simpler* than multiplication, The way most people were taught division it was more complicated!

A good illustration of how looking at the whole, instead of the parts would work is an example of talking about "Rays of Light". When I was in science class we had a unit on "Rays of Light" and we learned about them as individual rays. It was a hard and abstract concept to grasp as a child. However, in Steiner's world you could replace that lesson with a photo of mountains reflected in a lake – this lesson would be much easier to grasp. You can break the reflection down into rays at a later time.

However, these story poems are not about learning math, they are about practicing the times tables. You will first be teaching your child the four mathematical processes in addition to reciting "math facts" (see E-book "Sixth Sense Math"). Once they have grasped the concept of the process they are able to move on to recitation and even more advanced – the recitation or "acting out" of story poems.

Because different teachers use different methods in their recitation of the math facts I have included TWO versions of these story poems below. In one

version the product is first and in the other version the factor is first. You should use whichever set of poems synchronizes well with the other lessons your child is doing.

The Math Adventures of Suni and Max

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These poems are very flexible in nature. They can be told as a story, they can be read by the child as a poem or they can be done as a play. I have done my best to keep the humor kind and gentle and to fill the verses with peace and beauty from the earth, as well as math.

I have found that the kids in my classes enjoy these poems in many different ways. When I first introduce the poems I like to pass them out to different children so each child only knows one poem. The class usually sits, enthralled while the child reads out the poem story because they want to know the punch line/end. As a teacher you can also "tell them" as poetry stories. If you cannot memorize them, then at least you can practice reading them without looking down at the paper too many times. I find that when first introducing them it is fun to do it one by one and slowly so the element of surprise keeps them interested.

After introducing the children to the stories they can copy the poems in their books. Children usually have a favorite one they want to copy.

I have also used these poems, set to a spontaneous melody or popular melody as part of our circle time in the morning. However, this can get a little long so if I do this we usually have only one verse that morning (along with our opening verse) and we only do one of the poems each month. I use these poems in conjunction with beanbag math, and other methods of learning and practice.

Another way I have used these stories is as skits. I will give the story to 3 or 4 children (or sometimes even one), have them gather props from around the room and then I will read the story as they act it out. This usually results in a lot of laughing and a good time! If you have any other questions or ideas you have about how to use these stories please e-mail me at:
herbnhome@yahoo.com

These poems are appropriate for ages 7 and up. Some of the topics in the poems are not appropriate for younger ages, although they may enjoy some of the poems if you wish.

One Times Table

Hi my name is Suni
and I'd like to share
some math adventures I've had
that I think are very rare.

I have a little brother,
Max is his name.
I adore him but he bugs me.
I'll bet your siblings are the same.

So when I get annoyed with him
I multiply like wild
and since 1 is 1 x 1
I become an only child.

If you think that is a cool trick
Guess what I found out?
1 times any number
Doesn't change the amount!

So 2 is 2 x 1.
and 3 is 3 x 1.
and 4 is 4 x 1.
It's easy and its fun.

I think that one is powerful
because it's at a peak.
There is one world, one God, one YOU
and many things unique.

One is also unity
- the oneness of us all.
Like the one sun with many rays,
or many branches on ONE tree so tall.

Since 1 is the number that unites us all,
it doesn't come as a surprise,
that if you multiply it,
it doesn't change the size.

So I could go on and on and on
Until completely done
5 is 5 x 1
and 6 is 6 x 1.

Some people think because of this,
that 1 is really fun.
7 is 7 x 1.
and 8 is 8 x 1.

I could go on forever
multiplying on the run.
9 is 9 x 1.
and 10 is 10 x 1.

However, between you and me,
I find this all quite a bother.
The only time it comes in handy
Is when I want to vanish brother.

Two Times Table

My ma she wanted fruit one day
so she sent me to the store.
I asked the man for one banana.
He said there were no more.

I asked him for an apple.
He said, "We've just got none"
So I asked him for a melon.
He pointed down his thumb.

I looked around and sighed
and asked him to be true.
"Can you tell me," I pleaded
"How many pears have you?"

"I have a pair of eyes," said he.
"That means two – I'm through.
I also have a pair of ears
so 4 is 2 times 2."

"And you can see my pair of legs
In my pants that are brand new
and since a pair is only two
so 6 is 3 times 2."

"Additionally, if you can count
I also have two knees
so adding it with other things
I think you'll be quite pleased."

"For so far I have four pairs of things
and 8 is 4 times 2.
So I think you will agree
that you want to hear more too!"

"But don't stop counting yet," he said.
"I'll put my pair of hands on you
and that adds up to five pairs
because 10 is 5 times 2."

"I've reached six pairs with my two feet.
Each in a fancy little shoe
And if you add these things all up
you'll see 12 is 6 times 2.

"But I have more," he said to me,
"Than 12 or just eleven.
If you add my pair of arms
The pairs will reach to seven!"

"And 14 is 7 times 2
so I am very proud
to find the things I've pairs of
have formed quite a crowd."

"I think I'll count my pair of thumbs
to make the numbers grow.
See – now I've counted eight pairs
and that makes quite a show."

"For 16 is 8 times 2
See how quick the numbers climb
when counting things in pairs
like two nickels make a dime?"

"9 pairs would be the nicest pair
of elbows ever seen
for 18 is 9 times 2
Total pairs are now 18!

"You'd think 18 would be enough
but there is one more too…
I have a pair of shoulders
and 20 is 10 times 2.

"Does that answer your question?"
He looked at me and queried.
"You know," said I, "forget the pears!
Just give me some strawberries."

Three Leaf Clover

I picked a three-leaf clover
on the way back home from school.
But my brother saw it in my hands and said,
"Three-leaf clovers are not cool."
"The best ones have four leaves," he said.
"Because those kind bring you luck
you have to look around a while
to be a lucky-duck."

I didn't go in to eat my dinner.
I stayed outside that night.
I vowed to find a four-leaf clover
and look with all my might.
I looked all around the yard
in the rainy weather.

Then suddenly it occurred to me
I could put two together!
6 is 2 times 3 I thought.
I could tape them together
for if a four-leaf clover's lucky
then a 6-leaf clover is better.

But why, I thought, should I stop there?
9 is 3 times 3.
If a six leaf clover is lucky
then nine is fine by me!

I wonder what would happen
if four were in a group
12 is 4 times 3.
so that would be a scoop!

When I go in the house tonight
imagine my brother's surprise
if I held a 12-leaf clover
right beneath his eyes.

But why be stingy I thought
15 is 5 times 3.
If I had the luck of a fifteen-leaf
I'd really be happy.

And imagine the luck of 6 clovers!
Luck you just couldn't ignore.
For 18 is 6 times 3 leaves.
And that's much better that four!

Perhaps I could add just one more
clover to my bunch.
For 21 is 7 times 3
And then just on a hunch…

Perhaps I'll end with picking eight
for 24 is 8 times 3. 24…
If I had that much good luck
how could I want for more?

But then, again, more is better
for 27 is 9 times 3.
And if I had so much good luck
That would be just fine!

Speaking of which, it is getting dark.
I'd better go in quick.
For my mother will be worried
and think I might be sick.

But right before I go inside
I'll pick just one last clover
for 30 is 10 times 3.
Now clover picking's over.

I run inside the house
and slamming the front door.
"See this?" I say to my brother,
"Luck times 30 not just 4."

He looked at my ten 3-leaf clovers
and gently said to me,
"You can't do that at all
for they're really all just three."

"You have to find just one 4-leaf
and then you'll get good luck.
You can't just tape them altogether.
That way you are just stuck!"

But then a little gnome came by
and said I'd won a prize
- a free gold coin every day of the year -
of any shape or size.

I jumped and laughed and looked at bro
"See?" I said to him.
"My good luck has started already
and all because I've got ten!"

The next day my brother came from school.
I saw him in the yard
saying his three times tables
and concentrating hard.

"6 is 2 times 3," he said.
"9 is 3 times 3.
12 is 4 times 3.
That is fine with me."
"15 is 5 times 3
and 18 is 6 times 3.
21 is 7 times 3.
Look at all this green."
"I must find more clovers.
Where oh where are they?
24 is 8 times 3.
That is not enough I say!"
27 is 9 times 3.
One more and I'll go home.
And thirty is 10 times 3.
Now where is that little gnome?

Four Times Table

Four is 1 times 4.
as everybody knows
because one times any number
doesn't make the number grow.

Four corners are on some homemade bread.
Two pieces make the sandwich more.
Now we have eight corners
because 8 is 2 times 4.

We start with a four again.
Four legs are on a unicorn.
Twelve legs on a family of three
if you don't count the horn

Four corners has a book.
Take three and stack them by the door.
Now we have 12 corners
Because 12 is three times four.
Four corners has a cake pan.
We will bake four cakes.
So now we have 16 corners.
A joyful party that makes!
Four quarters are in a dollar.
Twenty is five times four.
I'll put it in my wooden bank

so I can save some more.
Four legs are on a table.
Twenty-four is six times four.
Many people could sit down now.
How could we ask for more?

Four corners are in a room.
We have seven in the store.
Each corner has a clock
28 is 7 times 4.

Four chairs are at the table
- two for me and two for you.
But if we had eight tables
we could share 32.

Four fingers are on your hand
- the thumb is the fifth.
Put nine hands together
and you have 36.

Five Times Table

One day I had to learn
the five times table fast.
I was behind on homework,
especially my math!

I used my hands as mama taught
and found it was quite easy.
1 times 5 of my fingers was 5
I've known that since I was three.

So 5 is 5 times 1.
I went on to the other hand.
I put both hands in front of my face
and counted altogether ten.

So ten is 5 fingers times 2,
as everyone knows,
we all have ten fingers
so I went on to count my toes.

I put out one foot with my two hands and saw
15 is 5 times 3.
I also smelled my feet were stinky so
I washed them to get them clean.

Now with my very clean feet
I put up my other toes.
I saw that 20 is 5 times 4
right in front of my nose.

I was doing so well
I realized I needed more hands
so I grabbed my brother Max
who was playing in the sand.

"Hey Max" I said, "I need your hands."
"I'm playing trucks" he replied.
"Quit playing trucks," I asked very sweetly,
and please quick come inside!"

I had to promise him I'd play
after he helped me multiply.
So he held up a cute little chubby hand
and then he started to cry…

If we put up 3 hands and 2 feet
We see that 25 is 5 times 5.

Then I grabbed his other hand.
and saw that it was dirty.
Four hands, 2 feet - 30 is 6 x 5.
Max repeated, "30!"

By that time little Max was bored
he didn't want to stand so still
so I grabbed him by his 5 little toes
and counted up my fill.

I noticed that with 7 sets of five,
four hands, and three sets of toes,
that 35 is 5 times 7.
With multiplying 5 grows.

By that time Max was starting to whine.
He wanted a snack now too.
So I grabbed his other leg
and counted those toes too.

Quickly I counted 40
was 5 x 8 I found.
Then my mom heard Max was whining
and started to come around.

She approached me gently and said,
"What are you doing with your poor brother?"
I glanced at her hand on Max's shoulder and
Said, "Wait a minute mother!"

So I counted her hand upon his shoulder
- 9 sets of fingers and toes -
I found that 45 is 9 time 5
and that mother's patience doesn't grow.

She put her other hand on Max's shoulders
to set poor Maxie free.
But I was almost done
I couldn't let her stop me!

I counted her other fingers.
I now had ten sets in all
- six sets of fingers
and 4 sets of toes.

Fifty is 10 times 5 I yelled!
And then I released my brother.
I had finished my math homework.
Now to appease my mother…

Stacking Sixes

One day I was playing with Max
who only had ten blocks.
I wasn't having any fun with ten
so I stared hard at my socks.

I remembered how many times
that math had saved the day
so I held up one of the ten blocks
and couldn't help but say,

"This ONE block had 6 sides."
6 is 1 times 6.
"Look," I said to my little bro,
"This block is really six!"

Eyes wide with disbelief
he said, "how can that be?
Why is it 6 and why not 7 or
Twenty or forty or three?"

"Because," I said, "it has 6 sides!
So one block becomes 6."
He looked at me with admiration
and my boredom was suddenly fixed.

Encouraged by his praise
higher I stacked 2 blocks.
12 is 2 times 6
So now you have lots!

Then I put another block
in the middle of the bricks.
I made a little pyramid
and 18 is 3 times 6.

"I want MORE blocks," Max said,
"So make me more and more"
"Ok," I said, "we'll take 6 x 4 in a row
and make them 24!"

24 is 4 times 6 - 30 is 5 times 6
36 is 6 times 6
"Wait," said Max, "are my blocks really more
or is this one of your tricks?"

"No, this is MATH,"
I said to Max,
"and math is never wrong."
42 is 7 times 6
"See this block train that's so long?"

"It DOES look long," he said to me,
"so I guess it could be true
that 48 is 8 times 6
and that's more than 42!

"Yes, and 56 is 9 times 6
and 60 is 10 times 6.
See how big a pile that makes?
Look at this big mix!"

But then he started to count
the blocks that I laid out.
He might be only 5 but
he is pretty smart.

So I watched Max count them 1 through ten
and I thought I had been caught!
But when he found them only ten he yelled,
"Mom! Suni took my blocks!"

Seven Directions of the Earth

My mum she always asks me,
"What did you see at school today?"
I think about bushes, trees and grass but
I really don't know what to say.

So one day I came home
and instead of saying, "green"
I had an adventure to share
about the things I'd seen.

"I saw 7 robins,
14 hawks,
and 21 ducks
sitting on some rocks."

"I saw 28 turkeys,
35 geese,
and 42 parrots
flying without a leash."

"I saw 49 bluebirds,
and 56 hens,
63 crows,
and 70 wrens

"I think you're telling stories,"
said mom,
"and to prove it, I'll point out to you,
how could you have counted them all,
especially if they flew?"

"Oh that was easy," I said to mom.
"I used math on a wing.
It's always very useful
when counting flocks of things."

I noticed that one robin flew in each
of the 7 directions
and 7 is 1 x 7.
7 is 1 x 7!

And when I startled the hawks
2 flew to earth and to heaven.
More pairs flew east, west, south and north
and 14 is 2 x 7.

I chased the ducks in seven directions
and yelled "run, run run!"
21 is 3 times 7.
Chasing them was fun.

I wanted to warn the turkeys,
Thanksgiving was a bad day
But 28 is 4 times 7
when 4 ran each way.

The geese were eating corn
as I jumped in to grab a few
and 35 is 5 times 7
5 scattered together as they flew.

The parrots were busy chattering
- talking like me and you –
42 is 6 times 7
In groups of 6, they escaped TOO!

I almost didn't see the bluebirds
camoflauged against the sky
and 49 is 7 times 7
Grouped in 7s I heard them cry

The hens had escaped from a farm nearby
I thought I would be late
56 is 8 times 7.
when then they flew off in groups of 8.

The crows were circling
a squirrel that ran up in a tree
and 63 is 9 times 7.
When 9s grouped and scattered quickly

The wrens were hiding near the house.
When I came home they saw me.
and 70 is 10 times 7.
Flying sets of ten as far as I could see.

By that time mom was wide-eyed
And looking at bit harassed.
Perhaps she didn't believe me
or perhaps she was just IMPRESSED!

<u>Multiplying Eight</u>

At midnight I decided to surprise my mom
and put spiders on her bed.
She actually likes bugs a lot
so I knew she wouldn't be mad.

So I tucked one spider
under her pillow.
1 times 8 legs would crawl up her arm.
I tucked him very carefully so he wouldn't come to any harm.

But 16 is 2 times 8
and that is even better.
Imagine 16 legs on your arm,
and crawling into your sweater

But 24 is 3 times 8 legs
and 32 is 4 times 8
and 40 is 5 times 8
Doesn't that sound great?

Yes, yes yes! I totally agree
that more legs is the best.
So I put more inside her closet
in the pocket of a vest.

But you know me, it's hard to stop,
when I find something fun.
48 is 6 times 8
Oops! They're starting to run.

So off I go to chase 48 legs.
Can I handle them at this rate?
Well, 56 is 7 times 8 and
64 is 8 times 8.

So I gather up some more
of these creatures on a plate
72 is 9 times 8 and
80 is 10 times 8.

But just as I drop the tenth little gift
inside my mother's purse.
she walked into the room
and said, in a voice quite terse,

"What have you been doing
all alone this late?"
"I've been very busy," I said,
"learning to multiply eight!"

Nine Times Table

Some say that a cat has nine lives
so I had a great idea.
If I could gather enough cats
I could live forever!

I started with my cat
and 9 is 1 times 9.
I figured that gives me 9 more lives
and that's a lot of time.

Then I picked up a stray and fed her
so that she would stay.
18 is 2 times 9
I hoped she wouldn't go away.

Then the neighbor's cat came by
-five times larger than the stray -
but 27 is 3 times 9
no matter what he weighs.

He soon decided he didn't like
the stray that I had spied
"Wait!" I said, "don't fight with her!
She needs to keep her lives!"

So I put him in mom's room
and went to look for more.
I found another adorable one
waiting at the store.

I gave the man some money
and wrapped the kitty in some wool.
36 is 4 times 9 lives
and that is really useful.

But then I saw another one
in the cage right next to it
and 45 is 5 times 9
so I couldn't very well resist.

I was doing quite well now
and could live as long as I wished.
The cats certainly won't mind sharing
as long as I feed them fish.

But 54 is 6 times 9 and
63 is 7 times 9
72 is 8 times 9
and all of them in a line!

Then I went down to the pound
and gathered three cats more.
I brought them all home and fed them
but I was becoming poor.

All of my allowance was gone
and I was out of fish
and I still needed more cats
if I was to have my wish.

I wanted to live forever
not just a very long time
so I thought of how I could get more cats.
Then an idea chimed.

If the cats had babies then I would have
Cats and kittens to be mine
81 is 9 times 9
And 90 is 10 times 9.

The more little kittens they had together
the more lives I could collect
and starting with 7 cats
who knows what I could expect!

Then mom walked in and stared at me.
She looked a little shocked.
I glanced up at her and said,
"PLEASE watch where you walk."

"WHERE did all these cats come from?"
She asked me with great worry.
"Wait," I said, "don't get to mad.
Don't be in such a hurry."

I had to think fast, but sometimes,
fast thinking is not a charm.
For this is what I said,
while I held on to her arm,

"I did this for YOU dear mom,
you're getting old look in the mirrors.
I brought you all these cats you see
so they can share their years."

That's all it took and all the cats
were back upon the street.
I don't know what made mom so upset
that math trick was really neat!

Ten Times Table

I took my dime to the bakery
to buy a little snack.
I chose a carrot muffin
inside a little sack

I approached the counter
and gave the man a dime
"What year do you think it is boy?
1949?"

A dime is only ten cents
and that is not enough
to buy a fresh baked muffin
or any other stuff.

Well 20 is 2 times 10
and 30 is 3 times 10
That should be enough, I think,
to pay and eat something then?

He sighed at me and said,
"What does the sign say?
There's a higher price on it
as crisp and clear as day!"

I glanced down at the sign
Then looked at him again
I placed more dimes upon the counter
and said, "40 is 4 times 10!"

50 is 5 times 10
and 60 is 6 times 10
I'm getting really hungry.
Can you tell me WHEN?

"Little boy," the baker said,
"you need to pay some more.
70 is 7 times 10
but that won't pay the bill."

80 is 8 times 10
and 90 is 9 times 10
100 is 10 x 10 and
that sounds like plenty.

So I'd placed ten dimes on the counter
- that was 100 cents no more -
but the man was simply more confused
and said, "there is the door!"

So I walked home without a snack
and as I walked I pondered,
Why am I walking home with nothing?
I wondered and I wondered…

Then the answer came to me.
It didn't take me much time
to realize the grave danger
in trying to pay with dimes.

When you multiply anything by ten
it always ends in a zero
So that was the downfall of
The mathematician hero.

One times one is...

Hi my name is Suni
and I'd like to share
some math adventures I've had
that I think are very rare.

I have a little brother,
Max is his name.
I adore him but he bugs me.
I'll bet your siblings are the same.

So when I get annoyed with him
I multiply like wild
and since 1 x 1 is 1
I become an only child.

If you think that is a cool trick
Guess what I found out?
1 times any number
Doesn't change the amount!

So 1 x 2 is 2
and 1 x 3 is 3.
and 1 x 4 is 4.
It's so easy as you see.

I think that one is powerful
because it's at a peak.
There is one world, one God, one YOU
and many things unique.

One is also unity
- the oneness of us all.
Like the one sun with many rays,
or many branches on ONE tree so tall.

Since 1 is the number that unites us all,
it doesn't come as a surprise,
that if you multiply it,
it doesn't change the size.

So I could go on and on and on
reciting all one's tricks.
1 x 5 is 5
and 1 x 6 is 6.

Some people think because of this,
that 1 is really great.
1 x 7 is 7
and 1 x 8 is 8.

I could go on forever
multiplying in my head.
1 x 9 is 9
and 1 x 10 is 10.

However, between you and me,
I find this all quite a bother.
The only time it comes in handy
Is when I want to vanish brother.

Two Times Two is….

My ma she wanted fruit one day
so she sent me to the store.
I asked the man for one banana.
He said there were no more.

I asked him for an apple.
He said, "We've just got none"
So I asked him for a melon.
He pointed down his thumb.

I looked around and sighed
and asked him to be true.
"Can you tell me," I pleaded
"How many pears have you?"

"I have a pair of eyes," said he.
"That means two – no more.
I also have a pair of ears
so 2 times 2 is four."

"And you can see my pair of legs
as skinny as two sticks
and since a pair is only two
so 2 times 3 is six."

"Additionally, if you can count
I also have two knees
so adding it with other things
I think you'll be quite pleased."

"For so far I have four pairs of things
and 2 times 4 is eight.
So I think you will agree
that this is really great!"

"But don't stop counting yet," he said.
"I have a pair of hands
and that adds up to five pairs
And 2 times 5 is ten."

"If you count my pair of feet
you'll find I've reached six pairs
And if you add these things all up
you'll see 2 times 6 is twelve."

"But I have more," he said to me,
"Than 12 or just eleven.
If you add my pair of arms
The pairs will reach to seven!"

"And 2 times 7 is fourteen
so I am very proud
to find the things I've pairs of
have formed quite a crowd."

"I think I'll count my pair of thumbs
to make the numbers grow.
See – now I've counted eight pairs
and that makes quite a show."

"For 2 times 8 is sixteen.
See how quick the numbers climb
when counting things in pairs
like two nickels make a dime?"

"9 pairs would be the nicest pair
of elbows ever seen
and 2 times 9 as we all know
totals just eighteen."

"You'd think 18 would be enough
but there is one more pair on me.
I have a pair of shoulders
and 2 times 10 is twenty."

"Does that answer your question?"
He looked at me and queried.
"You know," said I, "forget the pears!
Just give me some strawberries."

Three Leaf Clover

I picked a three-leaf clover
on the way back home from school.
But my brother saw it in my hands and said,
"Three-leaf clovers are not cool."

"The best ones have four leaves," he said.
"Because those kind bring you luck
you have to look around a while
to be a lucky-duck."

I didn't go in to eat my dinner.
I stayed outside that night.
I vowed to find a four-leaf clover
and look with all my might.

I looked all around the yard
in the rainy weather.
Then suddenly it occurred to me
I could put two together!

2 times 3 is 6 I thought.
I could tape them together
for if a four-leaf clover's lucky
then a 6-leaf clover is better.

But why, I thought, should I stop there?
3 times 3 is 9.
If a six leaf clover is lucky
then a nine-leaf is super fine.

I wonder what would happen
if four were in a group
3 times 4 is 12.
so that would be a scoop!

When I go in the house tonight
imagine my brother's surprise
if I held a 12-leaf clover
right beneath his eyes.

But why be stingy I thought
for 3 times 5 is fifteen.
If I had the luck of a fifteen-leaf
that would be just keen.

And imagine the luck of 6 clovers!
Luck you just couldn't ignore.
For 3 times 6 is 18 leaves.
And that's much better that four!

Perhaps I could add just one more
clover to my bunch.
For 3 times 7 is 21.
And then just on a hunch…

Perhaps I'll end with picking eight
for 3 times 8 is 24.
And if I had that much good luck
how could I want for more?

But then, again, more is better
for 3 times 9 is 27.
And if I had so much good luck
I'd really be in heaven!

Speaking of which, it is getting dark.
I'd better go in quick.
For my mother will be worried
and think I might be sick.

But right before I go inside
I'll pick just one last clover
for 3 times 10 is 30.
Now clover picking's over.

I run inside the house
and slamming the front door.
"See this?" I say to my brother,
"Luck times 30 not just 4."

He looked at my ten 3-leaf clovers
and gently said to me,
"You can't do that at all
for they're really all just three."

"You have to find just one 4-leaf
and then you'll get good luck.
You can't just tape them altogether.
That way you are just stuck!"

But then a little gnome came by
and said I'd won a prize
- a free gold coin every day of the year -
of any shape or size.

I jumped and laughed and looked at bro
"See?" I said to him.
"My good luck has started already
and all because I've got ten!"

The next day my brother came from school.
I saw him in the yard
saying his three times tables
and concentrating hard.

"3 times 2 is 6," he said.
"3 times 3 is 9.
3 times 4 is 12.
That should be just fine."

"3 times 5 is 15
and 3 times 6 is 18.
3 times 7 is 21.
Look at all this green."

"I must find more clovers.
Where oh where are they?
3 times 8 is 24.
That is not enough I say!"

3 times 9 is 27.
One more and I'll go home.
And 3 times ten is 30.
Now where is that little gnome?

Four Times Four

Four times one is four
as everybody knows
because one times any number
doesn't make the number grow.

Four corners are on some homemade bread.
Two pieces make the sandwich I ate.
Now we have eight corners
because four times two is eight.

We start with a four again.
Four legs are on a unicorn.
A family of three makes twelve legs
if you don't count the horn

Four corners has a book.
Take three and stack them on a shelf.
Now we have 12 corners
because four times 3 is twelve.

Four corners has a cake pan.
We will bake four cakes.
So now we have 16 corners.
A joyful party that makes!

Four quarters are in a dollar.
Five times four is twenty.
I'll put it in my wooden bank
so I can save my money.

Four legs are on a table.
Four times six is 24.
Many people could sit down now.
How could we ask for more?

Four corners are in a room.
We have seven on the school estate.
Each corner has a clock
Four times seven is 28.

Four chairs are at the table
- two for me and two for you.
But if we had eight tables
we could share 32.

Four fingers are on your hand
- the thumb is the fifth.
Put nine hands together
and you have 36.

Five Times Table

One day I had to learn
the five times table fast.
I was behind on homework,
especially my math!

I used my hands as mama taught
and found it was quite easy.
1 times 5 of my fingers was 5
I've known that since I was three.

So 1 x 5 is 5.
I went on to the other hand.
I put both hands in front of my face
and counted altogether ten.

So 2 x 5 fingers is ten,
as everyone knows,
we all have ten fingers
so I went on to count my toes.

I put out one foot with my two hands and saw
3 times 5 is 15.
I also smelled my feet were stinky so
I washed them to get them clean.

Now with my very clean feet
I put up my other toes.
I saw that 4 x 5 is 20
right in front of my nose.

I was doing so well
I realized I needed more hands
so I grabbed my brother Max
who was playing in the sand.

"Hey Max" I said, "I need your hands."
"I'm playing trucks" he replied.
"Quit playing trucks," I asked very sweetly,
and please quick come inside!"

I had to promise him I'd play
after he helped me multiply.
So he held up a cute little chubby hand
and then he started to cry…

If we put up 3 hands and 2 feet
We see that 5 x 5 is twenty-five.

Then I grabbed his other hand.
and saw that it was dirty.
Four hands, 2 feet and then I saw
that 6 x 5 is thirty.

By that time little Max was bored
he didn't want to stand so still
so I grabbed him by his 5 little toes
and counted up my fill.

I noticed that with 7 sets of five,
four hands, and three sets of toes,
that 7 x 5 is 35.
With multiplying 5 grows.

By that time Max was starting to whine.
He wanted a snack now too.
So I grabbed his other leg
and counted those toes too.

Quickly I counted 8 x 5
and forty was what I found.
Then my mom heard Max was whining
and started to come around.

She approached me gently and said,
"What are you doing with your poor brother?"
I glanced at her hand on Max's shoulder and
Said, "Wait a minute mother!"

So I counted her hand upon his shoulder
- 9 sets of fingers and toes -
I found that 9 x 5 is 45
and that mother's patience doesn't grow.

She put her other hand on Max's shoulders
to set poor Maxie free.
But I was almost done
I couldn't let her stop me!

I counted her other fingers.
I now had ten sets in all
- six sets of fingers
and 4 sets of toes.

5 x 10 is fifty I yelled!
And then I released my brother.
I had finished my math homework.
Now to appease my mother…

Stacking Sixes

One day I was playing with Max
who only had ten blocks.
I wasn't having any fun with ten
so I stared hard at my socks.

I remembered how many times
that math had saved the day
so I held up one of the ten blocks
and couldn't help but say,

"This ONE block had 6 sides."
6 x 1 is 6.
"Look," I said to my little bro,
"This block is really six!"

Eyes wide with disbelief
he said, "how can that be?
Why is it 6 and why not 7 or
Twenty or forty or three?"

"Because," I said, "it has 6 sides!
So one block becomes 6."
He looked at me with admiration
and my boredom was suddenly fixed.

Encouraged by his praise
higher I stacked 2 blocks.
2 x 6 is 12
So now you have lots!

Then I put another block
in the middle of the scene.
I made a little pyramid
and 6 x 3 made 18.

"I want MORE blocks," Max said,
"So make me more and more"
"Ok," I said, "we'll take 6 x 4 in a row
and make them 24!"

6 x 5 is 30
6 x 6 is 36
"Wait," said Max, "are my blocks really more
or is this one of your tricks?"

"No, this is MATH,"
I said to Max,
"and math is never wrong."
6 x 7 is 42
"See this block train that's so long?"

"It DOES look long," he said to me,
"so I guess it could be true
that if 6 x 8 makes 48
6 x 7 could be 42."

"Yes, and 6 x 9 is 56
and 6 x 10 is 60.
See how big a pile that makes?
Isn't this really nifty?"

But then he started to count
the blocks that I laid out.
He might be only 5 but
he is pretty smart.

So I watched Max count them 1 through ten
and I thought I had been caught!
But when he found them only ten he yelled,
"Mom! Suni took my blocks!"

Seven Directions of the Earth

My mum she always asks me,
"What did you see at school today?"
I think about bushes, trees and grass but
I really don't know what to say.

So one day I came home
and instead of saying, "green"
I had an adventure to share
about the things I'd seen.

"I saw 7 robins,
14 hawks,
and 21 ducks
sitting on some rocks."

"I saw 28 turkeys,
35 geese,
and 42 parrots
flying without a leash."

"I saw 49 bluebirds,
and 56 hens,
63 crows,
and 70 wrens

"I think you're telling stories,"
said mom,
"and to prove it, I'll point out to you,
how could you have counted them all,
especially if they flew?"

"Oh that was easy," I said to mom.
"I used math on a wing.
It's always very useful
when counting flocks of things."

I noticed that one robin flew in each
of the 7 directions
and 1 x 7 is 7.
1 x 7 is 7!

And when I startled the hawks
2 flew up down and in between.
More pairs flew east, west, south and north
and 2 x 7 is 14.

I chased the ducks all over
and yelled "run, run run!"
I noticed 3 flew in each of the 7 directions.
3 x 7 is 21.

I wanted to warn the turkeys,
Thanksgiving they'd be on a plate.
But 4 ran in each direction
and 4 x 7 is 28.

The geese were eating corn
as I jumped and took a dive.
5 flew in each of the directions
and 7 x 5 is 35.

The parrots were busy chattering
- talking like me and you -
and as I approached they flew off in 6's.
7 x 6 is 42.

I almost didn't see the bluebirds
camouflaged against the sky
but then they flew off in 7's
and 7 x 7 is 49.

The hens had escaped from a farm nearby
and were busy pecking sticks.
But then they flew off in groups of 8.
7 x 8 is 56.

The crows were circling
a squirrel that ran up in a tree
then they all scattered in groups of 9
and 7 x 9 is 63.

The wrens were hiding near the house.
When I came home they saw me.
Then they flew off in sets of 10
and 7 x 10 is seventy.

By that time mom was wide-eyed
And looking at bit harassed.
Perhaps she didn't believe me
or perhaps she was just IMPRESSED!

Multiplying Eight

At midnight I decided to surprise my mom
and put spiders on her bed.
She actually likes bugs a lot
so I knew she wouldn't be mad.

So I tucked one spider
under her pillow.
1 times 8 legs would crawl up her arm.
I tucked him very carefully so he wouldn't come to any harm.

But 2 x 8 is 16
and that is even better.
Imagine 16 legs on your arm,
and crawling into your sweater

But 8 legs times 3 is 24
and 8 x 4 is 32
and 8 x 5 is 40.
What sounds better to you?

Yes, yes yes! I totally agree
that more legs is the best.
So I put more inside her closet
in the pocket of a vest.

But you know me, it's hard to stop,
when I find something fun.
8 x 6 is 48.
Oops! They're starting to run.

So off I go to chase 48 legs.
Can I handle any more?
Well, 8 x 7 is 56 and
8 x 8 is 64.

So I gather up some more
of these creatures so lovely.
8 x 9 is 72 and
8 x 10 is eighty.

But just as I drop the tenth little gift
inside my mother's purse.
she walked into the room
and said, in a voice quite terse,

"What have you been doing
all alone this late?"
"I've been very busy," I said,
"learning to multiply eight!"

Nine Times Table

Some say that a cat has nine lives
so I had a great idea.
If I could gather enough cats
I could live forever!

I started with my cat
and 1 x 9 is 9.
I figured that gives me 9 more lives
and that's a lot of time.

Then I picked up a stray and fed her
so that she would stay.
2 x 9 is 18.
I hoped she wouldn't go away.

Then the neighbor's cat came by
-five times larger than the stray -
but 3 x 9 is 27
no matter what he weighs.

He soon decided he didn't like
the stray that I had spied
"Wait!" I said, "don't fight with her!
She needs to keep her lives!"

So I put him in mom's room
and went to look for more.
I found another adorable one
waiting at the store.

I gave the man some money
and wrapped the kitty in some wool.
4 x 9 is 36 lives
and that is really useful.

But then I saw another one
in the cage right next to it
and 5 x 9 is 45
so I couldn't very well resist.

I was doing quite well now
and could live as long as I wished.
The cats certainly won't mind sharing
as long as I feed them fish.

But 9 x 6 is 54 and
9 x 7 is 63.
9 x 8 is 72
so I need another THREE!

I went down to the pound
and gathered three cats more.
I brought them all home and fed them
but I was becoming poor.

All of my allowance was gone
and I was out of fish
and I still needed more cats
if I was to have my wish.

I wanted to live forever
not just a very long time
so I thought of how I could get more cats.
Then an idea chimed.

If the cats had babies then I would have
Cats and kittens aplenty
9 x 9 is 81.
And 9 x 10 is 90.

The more little kittens they had together
the more lives I could collect
and starting with 7 cats
who knows what I could expect!

Then mom walked in and stared at me.
She looked a little shocked.
I glanced up at her and said,
"PLEASE watch where you walk."

"WHERE did all these cats come from?"
She asked me with great worry.
"Wait," I said, "don't get to mad.
Don't be in such a hurry."

I had to think fast, but sometimes,
fast thinking is not a charm.
For this is what I said,
while I held on to her arm,

"I did this for YOU dear mom,
you're getting old look in the mirrors.
I brought you all these cats you see
so they can share their years."

That's all it took and all the cats
were back upon the street.
I don't know what made mom so upset
that math trick was really neat!

Ten Times Table

I took my dime to the bakery
to buy a little snack.
I chose a carrot muffin
inside a little sack

I approached the counter
and gave the man a dime
"What year do you think it is boy?
1949?"

A dime is only ten cents
and that is not enough
to buy a fresh baked muffin
or any other stuff.

Well 10 x 2 is twenty
and 10 x 3 is thirty.
That should be enough, I think,
to pay and eat this treat!

He sighed at me and said,
"What does the sign say?
There's a higher price on it
as crisp and clear as day!"

I glanced down at the sign
And didn't like what was in front of me
so I placed more dimes upon the counter
and said, "10 x 4 is forty!"

10 x 5 is fifty
and 10 x 6 is sixty.
I'm getting really hungry.
Is there something you can bake for me?

"Little boy," the baker said,
"you need to pay some more.
10 x 7 is 70
but that won't pay the bill."

10 x 8 is 80
and 10 x 9 is 90.
10 x 10 is one hundred and
that sounds like plenty.

So I'd placed ten dimes on the counter
- that was 100 cents no more -
but the man was simply more confused
and said, "there is the door!"

So I walked home without a snack
and as I walked I pondered,
Why am I walking home with nothing?
I wondered and I wondered…

Then the answer came to me.
It didn't take me much time
to realize the grave danger
in trying to pay with dimes.

When you multiply anything by ten
it always ends in a zero
so that is certainly what happened to me
The mathematician hero.