

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ ПЕДАГОГІЧНИЙ УНІВЕРСИТЕТ  
ІМЕНІ Г.С.СКОВОРОДИ**

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**ACTIVITIES FOR WORKING WITH CHILDREN  
WHO HAVE SPECIAL NEEDS  
(for teachers, special educators and parents)**

**навчально-методичний посібник**

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## **CONTENT**

**Articulatory gymnastics exercises**

**Finger gymnastics. Exercises for the development of fine motor skills**

**Breathing techniques, activities and games**

**Activities for Kids With Down Syndrome**

**Games that will Educate Kids About Diabetes**

**References**

## **ARTICULATORY GYMNASTICS EXERCISES**

### **Types of exercises**

Articulation exercises are static (the tongue is fixed in a fixed position) and dynamic (all organs of the vocal apparatus are involved).

### **Static exercises**

When performing them, it is important not only to show the position of the tongue, but also to hold the pose for about 7-10 seconds.

**"Shovel."** We open our mouth wide, "lay" the relaxed tongue on the lower lip.

**"Mushroom"**. We attach the tongue to the palate and as far as possible we open our mouth.

**"Proboscis."** The closed lips are pulled forward as much as possible with a "tube" and hold for 5 to 10 seconds.

### **Dynamic exercises**

The exercises are performed at the expense of where the position of the organs of speech rhythmically changes.

**"Watch."** We open our mouths and smile. We make the tongue narrow, with its tip we reach the corners of the mouth

**"Swing."** Open your mouth and stretch your tongue to the chin, then to the nose.

**"Where's the sweetie."** The lips are closed, alternately resting his tongue on each cheek.

**The horse.** We fix the tongue, as in the "mushroom" exercise, and weep strongly.

### **Delicious games for speech**

Pull in spaghetti marmalade, lips extended into a tube.

Fix the stick under the nose with the upper lip, as if it were a mustache.

The task is the same, only now the tongue and upper lip are involved.

The mouth is open, a wand is put on the tongue. The baby's goal is to keep her in balance.

The lollipop lies on the tongue, like in a cup. The mouth is open.

Licking the lollipop from different directions, in a circle.

**"Pipe."** Ask the child to stretch the lips forward and hold it as long as possible. When complicating the exercise, you can ask the child to produce something like "du-duuuuu."

**"Kitten breakfast."** Show the baby a picture of a kitten drinking milk from a bowl. Ask your baby to open his mouth and demonstrate how cats caress milk. Complicate the task by asking to open your mouth wider, at the same time smiling and stroking while "licking" the tongue of the palate.

**"Hedgehog"**. This is an active exercise. Show the baby a card with a hedgehog and read the rhyme: "He looks like a little ball, sweet, kind, nice hedgehog." The child takes a breath at the beginning of the verse, and at the end of the couplet, one needs to exhale actively and as you exhale, pronounce "puff-puff" as loudly as possible.

**"Goal"**. Mom reads: "We open the gates, we invite everyone to visit! ". The baby's task is to open his mouth wide, hold it in this state for 5-7 seconds and gently close it.

**"Balloons"**. Have your child puff out his cheeks like balloons. The task is to keep them in this position for as long as possible, and then abruptly clap their hands on the cheeks and blow off the "balls".

**"Watch."** Mom shows a card, which shows a clock with a pendulum. He reads: "The clock goes quietly, five minutes, seven minutes" (on these words the child sticks out his tongue and tries to describe the circle with his tip in the air, like clockwork). Mom continues: "Well, the pendulum is a mastak, tick-tock, tick-tock!" (The child, after circular movements with the tip of the tongue, proceeds to move the tip of the tongue to the right and left, like a pendulum).

**"Puppy and the snake."** Ask the child to show how the puppy breathes on a summer day - the tongue is sluggish, wide and spread on the lower lip. And then ask to show how the snake does it - the tongue becomes mobile and "sharp".

**"Zoo"**. Show the card with the tiger and ask the baby how the tiger growls - "Rrrr". Show pictures of those animals in the name of which there is a sound difficult for the baby and ask them to voice the name and show how the beast "speaks":

**Exercise "Hippo."** We open our mouth as wide as possible. Close your mouth.

**Exercise "Kiss Mom."** Pull lips with a tube.

**Exercise "Show the teeth."** Stretch your lips in a smile.

**Exercise "Walk".** The movement of the tongue back and forth, left and right.

**Exercise "Inflate your cheeks."** Inflate and retract the cheeks one by one - "Cheeks are thick-thin"

**Exercise "Tongue walks"** The tongue went for a walk. (A wide, relaxed tongue on the lower lip.) Hid in the house again. (Tongue behind lower teeth.)

### **For children 2 to 3 years old**

**The ball.** Ask your baby to puff out his cheeks and blow them out. If he doesn't succeed right away, lightly push them. Subsequently, you can inflate the cheeks alternately.

**"Guess what."** Prepare hot and cold water, a teaspoon. When the child closes his eyes, touch the device to the lips of the tongue and offer to guess what water the spoon has visited.

**"House".** Opening the mouth (house), the baby shows the tongue, then hides it again.

**"Gateway".** Opening your mouth wide, you need to fix the position (5 - 7 seconds).

### **For children 3 to 4 years old**

**"Tasty jam".** Ask the baby for fun to lick the jam from the lips. First from the top, then from the bottom.

From the above exercises, children learn to perform **"Shovel", "Watch", "Swing", "Horse"**.

### **For children 4 to 5 years old**

**The needle.** Open your mouth, push the tongue forward as far as possible, making it narrow. Smiling, we open our mouths wide. The tip of the tongue abuts against the tubercle behind the lower teeth. The position is held.

**"Let's clean the teeth".** The mouth is wide open again, a smile on his lips. The tip of the tongue makes movements resembling brushing your teeth from the inside (right-left). Only the tongue works, the rest of the organs are motionless.

### **For children 5 - 7 years old**

***"Clap your hands"***. An adult calls sounds, and a preschooler claps his hands (crouches, raises his hand) when he hears a predetermined sound. The task can be complicated by not pronouncing the sounds, but the words in which the desired sound is found.

**"Replace the sound."** An adult calls a word, a child replaces one of the sounds. For example, "Replace the first sound with [p] and say what happened: squeak - ..isk."

### ***Articulating gymnastics (with pictures)***

Articulation exercises help the child in fixing sounds. Show him how to do the exercise correctly. Remember that they should be done in front of the mirror. Gradually increase the number of repetitions and exercise time.

***"Yummy"*** Open your mouth, lick your upper lip, first from right to left, and then vice versa. It is important that the lower lip does not help the tongue and does not "sit down" it.

***"Swing"*** With your mouth wide open and smiling, put the tip of the tongue over the lower teeth (on the inside), and then lift it on the upper teeth (on the inside). **"Fish"** Spank your relaxed lips like a fish.

***"Horse"*** Open your mouth and click with the tip of your tongue ("the horse is clawing hooves"). **"Spatula"** Stick out your broad tongue and put it on your lower lip. Perform the exercise 5 times, sticking out the tongue for 5-10 seconds.

***"Needle"*** Open your mouth and stick out a sharp tongue as far as possible. Perform the exercise 5 times, sticking out the tongue for 5-10 seconds.

***"Saucer"*** Open your mouth wide, stick out a wide tongue. Lift it up without touching the teeth. Perform the exercise 5 times, sticking out the tongue for 5-10 seconds. **"Painter"** Open your mouth and smile. Swipe the tip of the tongue across the lips clockwise and counterclockwise. Perform the exercise 5 times.

***"Watch"*** Opening his mouth, with the tip of his tongue perform movements left and right, touching the corners of the lips.

***"Toffee"*** Let the child imagine that he has chewing candy in his mouth, which suddenly stuck to the upper teeth. Invite the baby to separate it with the tongue (make tongue movements on the inside of the teeth). Do the same with the lower teeth. It is important in this game to draw the attention of the child to the movements of the tongue.

***"Clean teeth"*** Smile, show teeth. Run the tip of the tongue over the upper teeth on the inside, then do the same with the lower teeth. The tongue should slide along the inside of the teeth from left to right. Perform the exercise 5 times.

### ***Development of speech respiration***

**"Dandelion"** Invite your child to pick up an imaginary dandelion. At the expense of 1 to 5, inhale with your nose, without lifting your shoulders, and then blow it onto the dandelion so that it scatters.

**"Bell"** Ask the child to go up to the wall and imagine that there is a door in front of him and an electric bell button nearby. Let the baby breathe in with his nose and, holding his breath for a second, press his finger on the "bell", while uttering "p-p-p-p". Then invite the child to do the same thing in turn with each finger of his left and right hand.

**"Candle"** Hold a lit candle in front of the child. Let the baby take a deep breath with his nose and blow out the candle sharply. Repeat the game several times.

**"Witch"** Invite your child to become a sorcerer for a while. Say in one breath, for example, such a "spell": "Mimm-mamm-mamm-mamm-mumm-mumm!" Watch out for the articulation of the child.

**"Ball"** Take the baby by the hands, thus forming a circle. Without breaking your arms, inhale with your nose and 2 small steps back. So the balloon is inflated. Now you have to "let the air out of it", at the same time pronouncing "ss ss ..." and taking 1 step forward. So the ball decreases. Release a little more air from the ball, pronouncing "cccc..." at the same time and taking another 1 step forward. The ball is getting even smaller. Repeat the game several times.

**The Frog** Let the child spread his legs a little wider than the shoulders, turn the socks to the sides as much as possible, and, bending his legs at the knees and crouching as low as possible, rest his palms on the floor. Ask him how the frog croaks ("kva-kva"). Ask the baby to show the frog jumping. Invite him to jump and croak at the same time.



## **FINGER GYMNASTICS. EXERCISES FOR THE DEVELOPMENT** **OF FINE MOTOR SKILLS**

### ***Fingers and Toes***

Every lady in this land  
Has twenty nails, upon each hand  
Five, and twenty on hands and feet:  
All this is true, without deceit.

### ***Here is the Beehive***

Here is the beehive (make a fist)  
Where are the bees?  
Hiding inside where nobody sees  
Watch them come creeping out of the hive  
One, two, three, four, five (release one finger at a time from the fist/hive)  
...BUZZ-ZZZ (wiggle fingers)

### ***Five Currant Buns***

Five currant buns in a baker's shop (hold up five fingers)  
Big and round with a cherry on the top (draw a circle in the air  
Along came a girl/boy (or child's name) with a penny one day,  
Bought a currant bun and took it away (tuck one finger down into fist).  
Four currant buns in a baker's shop...  
(Continue until no currant buns are left in the baker's shop).

### ***Five Green, Speckled Frogs***

Five green and speckled frogs (hold up five fingers)  
Sat on a speckled log,  
Eating the most delicious bugs,  
Yum, yum! (rub tummy with other hand)  
One jumped into the pool (tuck one finger down)  
Where it was nice and cool,  
Then there were four green speckled frogs,  
Glub, glub!  
Four green and speckled frogs...  
(Continue until there are no speckled frogs on the log).

***Five Little Ducks***

Five little ducks went swimming one day (hold up five fingers)

Over the hills and far away (hold arm across body and tuck fingers behind shoulder on the opposite side of the body)

Mother duck said, “Quack, quack, quack, quack” (use other hand to make a mother duck beak and open and close hand to quack)

But only four little ducks came back (bring first hand back to the front with four fingers showing)

Continue until no little ducks came back, then;

Old Mother Duck went out one day,

Over the hills and far away,

Mother Duck said “Quack, quack, quack, quack”

And all of those five little ducks came back.

***Five Jellyfish***

Five jellyfish, five jellyfish (hold up five fingers)

Five jellyfish sitting on a rock.

One jumped off! Splash! (tuck one finger down into a fist)

Four jellyfish...

No jellyfish, no jellyfish,

No jellyfish sitting on a rock.

One jumped up! Hooray!

One jellyfish...

***The Ants Go Marching***

The ants go marching one by one (hold up one finger)

Hoorah! Hoorah!

The ants go marching one by one,

Hoorah! Hoorah!

The ants go marching one by one,

The little one stops to suck his thumb (pretend to suck thumb)

And they all go marching down to the ground to get out of the rain.

The ants go marching two by two (hold up two fingers)

Hoorah! Hoorah!

The ants go marching two by two,

Hoorah! Hoorah!

The ants go marching two by two,

The little one stops to tie his shoe (pretend to tie shoe)  
And they all go marching down to the ground to get out of the rain.

The ants go marching three by three (hold up three fingers)

Hoorah! Hoorah!

The ants go marching three by three,

Hoorah! Hoorah!

The ants go marching three by three,

The little one stops to climb a tree (pretend to climb a tree)

And they all go marching down to the ground to get out of the rain.

The ants go marching four by four (hold up four fingers)

Hoorah! Hoorah!

The ants go marching four by four,

Hoorah! Hoorah!

The ants go marching four by four,

The little one stops to shut the door (pretend to shut a door)

And they all go marching down to the ground to get out of the rain.

The ants go marching five by five (hold up five fingers)

Hoorah! Hoorah!

The ants go marching five by five,

Hoorah! Hoorah!

The ants go marching five by five,

The little one stops to take a dive (pretend to dive)

And they all go marching down to the ground to get out of the rain.

The ants go marching six by six (hold up six fingers)

Hoorah! Hoorah!

The ants go marching six by six,

Hoorah! Hoorah!

The ants go marching six by six,

The little one stops to pick up sticks (pretend to pick up sticks)

And they all go marching down to the ground to get out of the rain.

The ants go marching seven by seven (hold up seven fingers)

Hoorah! Hoorah!

The ants go marching seven by seven,

Hoorah! Hoorah!

The ants go marching seven by seven,

The little one stops to pray to heaven (pretend to pray)

And they all go marching down to the ground to get out of the rain.

The ants go marching eight by eight (hold up eight fingers)

Hoorah! Hoorah!

The ants go marching eight by eight,

Hoorah! Hoorah!

The ants go marching eight by eight,  
 The little one stops to shut the gate (pretend to shut a gate)  
 And they all go marching down to the ground to get out of the rain.  
 The ants go marching nine by nine (hold up nine fingers)  
 Hoorah! Hoorah!  
 The ants go marching nine by nine,  
 Hoorah! Hoorah!  
 The ants go marching nine by nine,  
 The little one stops to check the time (pretend to check wristwatch)  
 And they all go marching down to the ground to get out of the rain.  
 The ants go marching ten by ten (hold up ten fingers)  
 Hoorah! Hoorah!  
 The ants go marching ten by ten,  
 Hoorah! Hoorah!  
 The ants go marching ten by ten,  
 The little one stops to shout  
 "THE END!!"

### ***One Grey Elephant Balancing***

One grey elephant balancing (with all children sitting in a circle, choose one child to be the first elephant pretending to balance on a string going around and around the inside of the circle)

Step-by-step on a piece of string.

Thought it was such a wonderful stunt.

That he called for another elephant (first elephant chooses another child to join him)

Two grey elephants balancing.

Step-by-step on a piece of string.

Thought it was such a wonderful stunt.

That they called for another elephant.

Continue until all of the children are balancing on the string

(Number) grey elephants balancing.

Step-by-step on a piece of string.

All of a sudden the piece of string broke.

And down came all the 'ele-folk'.

### ***One, Two, Buckle My Shoe***

One, two buckle my shoe (pretend to tie shoe)

Three, four knock on the door (pretend to knock on door)

Five, six pick up sticks (pretend to pick up sticks)  
 Seven, eight lay them straight (pretend to lay sticks down)  
 Nine, ten a big fat hen!

### ***5 Cheeky Monkeys Jumping On The Bed***

Five cheeky monkeys jumping on the bed (hold up five fingers and make them jump up and down)

One fell off and bumped his head (rub head)

Mama called the doctor and the doctor said (pretend to call on phone)

“No more monkeys jumping on the bed” (wag pointer finger like scolding someone)

Four cheeky monkeys jumping on the bed....

### ***There Were Ten In The Bed***

There were ten in the bed,

And the little one said, ‘Roll over, roll over’,

So they all rolled over and one fell out.

There were nine in the bed...

### ***Ten Cheeky Monkeys Swinging in the Tree***

Ten cheeky monkeys swinging in the tree (hold up ten fingers and swing hands from side to side)

Teasing Mr Crocodile, “You can’t catch me!”

Along came Mr Crocodile as quiet as can be,

And SNAP! (snap hands together)

Nine cheeky monkeys swinging in the tree...

### ***One Potato, Two Potato***

One potato, two potato

Three potato, four,

Five potato, six potato,

Seven potato, more!

### ***1, 2, 3, 4, 5 Once I Caught a Fish Alive***

1, 2, 3, 4, 5,

Once I caught a fish alive,

6, 7, 8, 9, 10,

Then I let it go again.

Why did you let it go?

Because it bit my finger so.  
Which finger did it bite?  
This little finger on my right.

### ***Johnny Works With One Hammer***

Johnny works with one hammer (children hammer with one hand)  
One hammer one hammer  
Johnny works with one hammer, Johnny works with two.  
Johnny works with two hammers (children hammer with two hands)...  
Johnny works with three hammers (children hammer with two hands and one leg)...  
Johnny works with four hammers (children hammer with both hands and both legs)  
Johnny works with five hammers (children hammer with both hands, both legs, and head)  
Five hammers five hammers  
Johnny works with five hammers  
Johnny's work is DONE!

### ***Ten Fat Sausages***

Ten fat sausages sizzling in a pan (hold up ten fingers)  
All of a sudden one went BANG! (clap hands on loud bang!)  
Nine fat sausages sizzling in a pan,  
All of a sudden one went BANG! ...

### ***Tommy Thumb Where Are You?***

Tommy Thumb,  
Tommy Thumb,  
Where are you?  
Here I am,  
Here I am,  
How do you do? (or How are you?)

Peter Pointer,  
Peter Pointer,  
Where are you?  
Here I am,  
Here I am,  
How do you do? (or How are you?)

Toby Tall,  
 Toby Tall,  
 Where are you?  
 Here I am,  
 Here I am,  
 How do you do? (or How are you?)

Ruby Ring,  
 Ruby Ring,  
 Where are you?  
 Here I am,  
 Here I am,  
 How do you do? (or How are you?)

Baby Small,  
 Baby Small,  
 Where are you?  
 Here I am,  
 Here I am,  
 How do you do? (or How are you?)

***Tommy Thumb is Up***  
*Tommy Thumb is up,*  
*And Tommy Thumb is down.*  
*Tommy Thumb is dancing,*  
*All around the town.*  
*Dancing on your shoulders,*  
*Dancing on your head,*  
*Dancing on your knees,*  
*Then tuck him into bed.*

*Peter Pointer's up,*  
*And Peter Pointer's down.*  
*Peter Pointer's dancing,*  
*All around the town.*  
*Dancing on your shoulders,*  
*Dancing on your head,*  
*Dancing on your knees,*  
*Then tuck him into bed.*

*Middle Man is up,  
And Middle Man is down.  
Middle Man is dancing,  
All around the town.  
Dancing on your shoulders,  
Dancing on your head,  
Dancing on your knees,  
Then tuck him into bed.*

*Ruby Ring is up,  
And Ruby Ring is down.  
Ruby Ring is dancing,  
All around the town.  
Dancing on your shoulders,  
Dancing on your head,  
Dancing on your knees,  
Then tuck him into bed.*

*Baby Finger's up,  
And Baby Finger's down.  
Baby Finger's dancing,  
All around the town.  
Dancing on your shoulders,  
Dancing on your head,  
Dancing on your knees,  
Then tuck him into bed.*

*Finger Family's up,  
And Finger Family's down.  
Finger Family's dancing,  
All around the town.  
Dancing on your shoulders,  
Dancing on your head,  
Dancing on your knees,  
Then tuck them into bed.*

Movements:

While singing Tommy Thumb is Up, you can do these movements:

**"Up"**: Point finger up.

**"Down"**: Point finger down.



**"Dancing":** Dance finger around.

**"Shoulders":** Put a finger (or a finger on both hands) on your shoulder(s).

**"Head":** Put finger on your head.

**"Knee":** Yes, you are right :) Put a finger on your knee.

**"Tuck him into bed":** Put both hands together and put your head on your hands. pretend you are sleeping.

### ***Hand Washing Song***

Wash hands well each day,

To keep germs away.

Scrub with soap and water,

And be on your way.

Wash hands well each day,

To keep germs away.

Scrub with soap and water,

And be on your way.

### ***One Finger, One Thumb (Keep Moving)***

One finger, one thumb, keep moving!

One finger, one thumb, keep moving!

One finger, one thumb, keep moving!

We'll all be merry and bright.

One finger, one thumb, one arm, keep moving!

One finger, one thumb, one arm, keep moving!

One finger, one thumb, one arm, keep moving!

We'll all be merry and bright.

One finger, one thumb, one arm, one leg, keep moving!

One finger, one thumb, one arm, one leg, keep moving!

One finger, one thumb, one arm, one leg, keep moving!

We'll all be merry and bright.

One finger, one thumb, one arm, one leg, one nod of the head, keep moving!

One finger, one thumb, one arm, one leg, one nod of the head, keep moving!

One finger, one thumb, one arm, one leg, one nod of the head, keep moving!

We'll all be merry and bright.

We'll all be merry and bright.

***Ten Little Fingers***

Ten little fingers, ten little toes,  
 Two little ears and one little nose  
 Two little eyes that shine so bright  
 And one little mouth to kiss mother goodnight.

Ten little fingers, ten little toes,  
 Two little ears and one little nose  
 Two little eyes that shine so bright  
 And one little mouth to kiss mother goodnight.

***One is a Dog (count on fingers)***

One is a dog that says bow-wow!  
 Two is a cat that says meow!  
 Three is a crow that says caw caw!  
 Four is a donkey that says hee-haw!

***My Fingers (sing to "Mulberry Bush")***

This is the way my fingers play (wiggle fingers)  
 Fingers play, fingers play  
 This is the way my fingers play  
 So early in the morning

***Three Little Monkeys***

Three little monkeys (hold up 3 fingers)  
 Hanging in a tree  
 Eating a banana (peel & eat banana)  
 Just like me  
 One had a frown (make a frown)  
 One had a grin (smile)  
 And one had banana  
 All over his chin! (tickle baby's chin)

***Here is the Church***

Here is the church (interlace hands fingers inside)  
 And here is the steeple (put index fingers together)  
 Open the doors (turn hands over)  
 And see all the people! (wiggle fingers)

***My Little House***

This is my little house (make roof -fingertips together)

This is the door (put thumbs together)

The windows are shining (pretend to polish windows)

And so is the floor (pretend to sweep the floor)

Outside there is a chimney

As tall as can be (stretch arms up high)

With smoke that goes curling up (swirl hand upward)

Over the trees

***Where is Thumbkin? sing to "Frere Jacques"***

Where is thumbkin? (hide hands behind back)

Where is thumbkin?

Here I am! (bring out one thumb and wiggle it)

Here I am! (bring out other thumb and wiggle it)

How are you today sir? (wiggle one thumb)

Very well I thank you (wiggle other thumb) Run away! (hide one thumb behind back)

Run away! (hide other thumb behind back)

***Dance Your Fingers***

Dance your fingers up,

Dance your fingers down

Dance your fingers to the side,

Dance them all around

Dance them on your shoulders,

Dance them on your head

Dance them on your tummy,

And put them all to bed (rest hands on side of face)

***Little Miss Ladybug***

Little Miss Ladybug sitting on a tree (lay fist on opposite palm)

She flew down and landed on my knee (flutter fingers down to knee)

She asked me if I wanted to play

But I said "no", so she flew away! (flutter fingers away)

***Roly Poly Caterpillar***

Roly-poly caterpillar into a corner crept (creep fingers down baby's arm to palm)

Spun himself a blanket (roll hands)  
 And for a long time slept (lay fist in palm)  
 Roly poly caterpillar wakened by and by (open fist)  
 Found himself with pretty wings,  
 Changed to a butterfly! (hook thumbs and flutter fingers)

### ***The Family***

This is Mommy, kind & dear (point to baby's thumb)  
 This is Daddy, standing near (point to pointer finger)  
 This is brother, see how tall (point to middle finger)  
 This is Sister, not so tall (point to ring finger)  
 This is Baby, sweet and small (point to little finger)  
 These are the family one and all! (wiggle all fingers)

### **Massage fingers and hands with a pencil**

#### ***Ironing***

*Take a thick pencil. Put it on the table. Smooth a pencil first with one palm, then with the other. Roll the pencil on the table.*

I will roll a pencil Left and right – as I want.

#### ***Fire production***

*Put the pencil on one palm, cover it with the other. Roll the pencil between the palms at first slowly, and then faster, from the tips of the fingers to the wrists. Now try to do it right away with two pencils. Happened?*

#### ***Catching up***

*Take a pencil with all your fingers. Twist it. Let the fingers run along the pencil, catching up with each other.*

Fingers run forward

And no one is behind.

#### ***Hill***

*Put the pencil on the back of the brush. Tilt your hand down. Hold the pencil with your other hand. Let it slide down your hand like a hill.*

#### ***Spinning top***

*Rotate the pencil on the table with two fingers, first with one hand, and then with the other. Try to do the same with your thumb and middle finger.*

I roll circles on the table

I don't release a pencil.

### ***Helicopter***

Take a thin long pencil with two fingers. Twist it. Let it spin fast, fast, like a helicopter propeller.

Set off

## **Games and exercises for the development of fine motor skills of hands.**

### ***Pipette Exercise***

For this exercise, you will need a pipette and small containers for pouring fluid. Suction with a pipette of water. It develops small finger movements and improves the overall motor skills of the hands.

### ***Tweezers Exercise***

In a container with tweezers, children lay beads, peas, buttons. Sort small items

Sorting by color, shape, size of small items, such as beads, buttons.

### ***Pompons & Tongs***

It is required to put pompons in a bottle with tongs.

Clothespins for dolls

Hanging doll clothes and shreds of fabric on a string with clothespins is also a wonderful exercise for developing fine motor skills. This type of activity is popular not only among girls, but also among boys.

### ***Box with clothespins***

Clothespins can be hooked not only on a rope, but also on a cardboard box. For these purposes, I used a shoe box. To make this exercise more interesting and useful, I cut out geometric shapes from cardboard and hooked clothespins to them.

### ***Hole punch exercise***

It is necessary to cut out a figure from cardboard, and then make holes in the edge of this figure with a hole punch. Now you need to take a colored lace or ribbon and pass it through the holes.

### ***Cocktail Tubes***

Cut into small pieces multi-colored plastic tubules for a cocktail. The exercise is to string these pieces in a certain sequence.

Dear colleagues, I introduced you to the most famous forms and methods of work for the development of fine motor skills of hands in preschool children. But for my work, I identified a few more unconventional and little-known methods, which I will tell you about now.

### **Little-known unconventional methods for the development of fine motor skills of hands**

Non-traditional methods of developing fine motor skills of hands include: massage using a Su-jok ball, Kuznetsov applicator or Lyapko needle mats (Acupuncture, button therapy).

Non-traditional material provides ample opportunities for training the small muscles of the hand in various types of activities that are playful in nature.

Between continuing educational activities, I spend dynamic pauses with the Su-Jok massager.

***Massager “Su-Jock”*** – This is a unique tactile gymnastics, which has a total effect on the cerebral cortex, which protects its individual zones from overwork, evenly distributing the load on the brain. Self-massage game with a massager is carried out in the form of 5-minute exercises between the main parts of the session (dynamic pauses).

### **Exercises to relax fingers and hands:**

***“Stroking a kitten”*** – smooth movements illustrating the corresponding action are performed first with one hand, then with the other. (3-5 times).

***“Bunny”*** – the hand rests on the elbow; the index and middle fingers are straightened and spread apart, the remaining fingers are clenched in a fist.

***“Ring”*** – the thumb and forefinger are connected into a ring, the remaining fingers are straightened and spread apart.

### **Exemplary exercises using the Su-Jok massager:**

The rectilinear movements of the barbed ball:

- On the back and palms of the hands (first ask the child to depict the sun, preading the fingers of the massaging hand). The direction of movement is from the fingertips to the wrist joint.

Circular palm movements:

- First one hand;
- Then the other hand.
- Spiral movements:

- On the back and palmar surfaces of the hand with pads of two to five fingers (from the tips of the fingers to the wrist joint).
- Zigzag movements:
- On the palms of both hands (you can use the game image in communication with children: draw the child's attention to the fact that the hand resembles a tree: the forearm is the trunk, and the hand with the fingers spread out is a crown).
- Slight tingling of all fingers:
- Pillows of one hand;
- Pillows of the other hand

### **Preparing a hand for the letter**

1. **Massage your fingers.** This child can do it himself or with the help of an adult. It is necessary to carefully massage the fingers of each of the hands, starting from the tips. This should be done with stroking, rubbing and circular movements. The duration of such a massage is no more than 2 minutes. Finger massage is recommended for written activities: before beginning, in the middle, at the end.
2. **"Greeting".** The child touches everyone else with his thumb, as though greeting: "Hello!"
3. **"Swan".** The child makes movements with his hands, simulating the flight of a swan.
4. **"Tic-tac-toe."** The child crosses alternately the index and middle fingers, the ring finger and the little finger.
5. **"Bell".** The child is shaking with his hands for 30-40 seconds.
6. **"Snake".** The child reaches with each finger to the base of the same finger.
- .
7. **"Piano".** The child depicts a piano.
8. **"Cut with scissors."** The child connects his fingers in pairs, and then spreads them.
9. **"We draw circles."** The child draws circles in the air with each finger of each hand.
10. At the end of the lesson we repeat exercises No. 3 and No. 5. We end with a massage (self-massage).

### ***GAME EXERCISE "Roll the ball"***

Each child rolls a rubber ball in the direction of a balloon of the same color. The child rolls the ball with the palm of his right hand from the end of the thread to the balloon, and in the opposite direction - rolls with the palm of his left hand.

***GAME EXERCISE with pronunciation of the text.***

**rules :** rolling the ball with pronouncing: “1,2,3,4,5 I will roll the ball” or “I roll the yellow ball to the yellow ball”

***GAME - LOTO “WHAT COLOR?”***

**Rules:** in children cards with the image of objects of different colors. Speech therapist calls color. Children find an object of this color on the cards, then name the object and its color and roll the ball to the ball of the corresponding color. For example: I have a green leaf, a green hat ...

***GAME EXERCISE “COLOR BALLS”***

**Rules:** a speech therapist, a psychologist calls color, children select words: for example, pink (-th, -th, -th). Speaking and supplementing offers with rolling the ball:

I painted red ...

I'm going to give a friend ...

I painted in a picture ...

On the green path is ...

***Game "Capitoshka"***

**Goal:** to expand children's knowledge of natural phenomena. Fix concepts:

“Clouds”, “rainbow”, “rain”, “lightning”, “hail”, “thunderstorm”, “snowfall”, “wind”. Enrich and intensify the vocabulary of children in accordance with the theme of “Natural Phenomena”. Learn to clearly pronounce the name of a natural phenomenon; select appropriate verbs for nouns (rain is coming, thunder is booming, lightning is sparkling, clouds are floating, etc.). Develop coherent speech by teaching children to write stories about natural phenomena. Develop fine motor skills of the hands. To educate observation, independence.

**Game progress :**

The story of the teacher of history about a small raindrop - Kapitoshka.

“Kapitoshka is a small raindrop. Once Kapitoshka appeared in the house of a little Wolf. The wolf cub is kind and affectionate, and this is exactly what upset his parents. He is a loving son, and in order to please mom and dad, he decided to reform and become real - Right! - a wolf, ferocious, evil, cruel and cunning. This is according to wolf laws, and so it is written in the self-instruction manual for real wolves. The little wolf intensively learns the rules from the textbook and trains scary poses. However, it is so difficult to turn from good to bad, because the evil Fairy enchanted him. We’ll help Kapitoshka spell the Teen Wolf. And for this, you and I need:



*Option psychologist.*

Roll the ball along the path to the magic cloud, which depicts a picture with the corresponding emotion. I propose to name and show emotions using facial expressions.

(The child rolls the ball in the opposite direction).

Thus, Kapitoshka helps Little Wolf to get rid of these complexes, become aware of himself and becomes his great friend.

*Speech therapist option.*

At the beginning of the game, children get balls. Each child must roll the ball along the panel to the corresponding natural phenomenon, which the teacher calls, from the bottom up with the fingers of the left hand and return the ball from top to bottom along the panel with the fingers of the right hand.

**Game options:**

rolling the ball, the child clearly says the name of a natural phenomenon.

Rolling the ball, the child first together with the teacher, and then independently speaks a poem about this phenomenon.

The panel can be used to consolidate the ability of children to select a noun - the name of the phenomenon is the corresponding verb. For example, rolling a ball to lightning, he says: "Lightning shines, radiates." Before the game, the teacher can invite the children to choose for themselves any phenomenon that is located on the panel; remember what they know about this phenomenon and, rolling a ball, talk about it.

*Completeness:* Game panel, on which you can mount on a sticky tape natural phenomena, pictures of emotions, 4 rubber balls.

***Game "Adventures of the Gingerbread Man"***

**Goal:** roll the yellow massage ball along the paths, develop fine motor skills of hands, coherent, dialogic speech (make a simple sentence of 2-3 words), intonation.

**Game progress:**

The teacher offers children a walk with a bun. During the game, the child discusses his movements with the teacher. "Gingerbread man rolls along the path, and a bunny, a wolf, a bear, a fox go to the meeting. Hello, Gingerbread Man! Where are you going? "

*Completeness:* game panel, pictures of a bunny, a wolf, a bear, a fox, a yellow rubber ball.

***The game "Toys Hid."***

**Tasks:** to teach children to move in accordance with a given direction “to the right”, “to the left”, “forward”, “back”, “in a circle”, “directly”, “in a circle”; develop fine motor skills of the hands; develop attention, auditory perception; to cultivate the ability to play together.

**Game progress:**

The teacher tells the children a short story: “The animals walked in the meadow, basked in the sun, but suddenly it started to rain. Everyone quickly ran away from the clearing, hiding somewhere. But then the rain ended, and again the sun came out. It called all the animals back to the clearing, but they forgot the way back.” The teacher suggests that children use the instructions to find animals and help them return to the clearing (toys lie on the ends of the tracks covered with handkerchiefs). If the child follows the instructions correctly, then he approaches the toy, finds it.

You can aim the child at the beginning of the game that he must find some specific toy, for example, a tiger cub. At the end of the path, it will be clear whether the child coped with the guidelines that the teacher gave him, and whether he was able to find the hidden toy or lost his way and found, for example, a dog.

**Instructions**

***Middle preschool age***

We put the ball at the beginning of the blue track and start moving right up to the blue ring, turn left, circle, turn right and follow the blue track right along the path to the intersection with the yellow track, turn right and move right to the end of the yellow track.

***Senior preschool age***

Put the ball at the beginning of the yellow track and start moving. We roll the ball along the yellow path to the intersection with the blue path, turn right and move right up to the yellow ring, turn left and move in a circle. We leave the circle, turn left along the path up to the beginning of the red carpet. Then we move right along the red carpet, turn left and move right to the end of the red carpet.

We put the ball at the beginning of the orange path, which is to your right, and we move directly along the winding path to the beginning of the blue path; turn left and move right up to the ring; turn right in a circle and move right along the blue track to the beginning of the red one and move right to the intersection with the yellow track; turn right and move right along the yellow track to the intersection with white; We move along the white path right to the end.

*Completeness:* game panel, animal toys, kerchiefs, rubber balls.

***TALE "Hedgehog for a walk"***

***Exercises with ball massager Su - Jock***

**Goal:** influence biologically active points according to the Su - Jock system, stimulate speech zones of the cerebral cortex.

**Equipment :** Su - Jock ball - massager.

Once upon a time there lived a hedgehog in the forest, in his house - a mink(*hold the ball in the palm of your hand*).

Peeked out a hedgehog from his mink(*open palms and show the ball*) and saw the sun. Hedgehog smiled at the sun(*smile, open one palm with a fan*) and decided to take a walk in the forest.

Hedgehog rolled in a straight path(*roll the ball with direct movements on the palm*) , rolled - rolled and ran into a beautiful, round clearing(*palms to connect in the form of a circle*). The hedgehog was delighted and began to run and jump across the meadow(*grip the ball between the palms*)

He began to smell flowers(*touch the spines of the ball to the tip of the finger and take a deep breath*) . Suddenly clouds came running(*grip the ball in one fist, in the other, frown*) and dripped rain: cap-cap-cap-cap(*with your fingertips in a pinch to knock on the spines of the ball*) .

Hedgehog hid under a large fungus(*make a hat with the palm of your left hand and hide the ball on them*) and sheltered from the rain, and when the rain ended, different mushrooms grew in the clearing: aspen mushrooms, boletus mushrooms, honey mushrooms, chanterelles and even porcini mushroom(*show fingers*).

I wanted a hedgehog to please my mother, collect mushrooms and take them home, and there are so many of them ... how will the hedgehog carry them? Yes, on its back. Gently planted the hedgehog mushrooms on the needles(*prick each tip of the finger with a ball spike*) and contented ran home(*roll the ball with direct movements on the palm*).

## **BREATHING TECHNIQUES, ACTIVITIES AND GAMES**

***“The ball at the gate”***. Make a ball out of cotton wool. Install the gate from the cubes and stretch out your lips with a “tube” to blow it onto the ball with the force, uttering the sound “y”, score a goal.

***“Ship”***. Make a paper boat. Pour water into a basin. For the smooth movement of the boat, blow at it calmly, pronouncing the sound “f”. To simulate gusts of wind, fold your lips with the sound “p”. In this case, without cheeks inflating.

***Bubbles***. Take a straw and a glass of water. Blow into a straw, which is in a glass of water, forming a cascade of bubbles. Do not puff out your cheeks.

### ***Use bubbles***

Blowing gently to create bubbles is a good way to be playful and breathe deeply. Kids have to blow carefully and slowly to make the bubbles, which is a major reason why I like using it to help kids take deep breaths.

### ***Use a stuffed animal to practice deep breathing***

Have your child lay down on their back and put a stuffed animal on their belly. Have them breathe in and move the stuffed animal up, then breathe out and bring the stuffed animal back down. This helps teach kids to use their belly to take big deep breaths. Another alternative is to use a weighted stuffed animal.

### ***Use a pinwheel***

Kids can practice breathing out slowly or more quickly, using the speed of the pinwheel as a measure. Then they can figure out which way works and feels best for them.

### ***Use a Feather***

Get some colored feathers and pick out one feather to use. It could be a color that they love or one that makes them feel calm. Breathe in and hold it for a count of 3, then breathe out going up on one side of the feather and down the other side.

### ***Hoberman Sphere***

Breathe in and expand the sphere, breathe out and push the sphere back in (this mirrors what should be happening to their belly)

### ***DIY Crafts***

Make a craft using half a paper plate, crepe paper or ribbons. Have kids blow the crepe paper or ribbons as they take deep breaths.

Materials Needed:

1. Paper plate - cut in half
2. crepe paper - cut into 6" - 8" strips, cut in half
3. yarn or string
4. any other embellishments to make the creature (use what you have on hand)
  - stickers
  - ribbon
  - paint
  - markers, crayons or colored pencils
  - tissue paper
  - googly eyes

Attach the crepe paper to the flat bottom of the paper plate. Attach yarn/string to the top center of the curved part of the paper plate as a hanger. Have kids decorate the paper plate any way they want, as a monster, or a creature, or with stickers.

To Use: hang up the creature and have kids blow on the crepe paper to get it to move.

### ***The snake game***

Simple, fun and effective. The snake game is a favorite among little children and consists of the following:

- **Have the children sitting in chairs and tell them to sit with their backs straight.**
- Tell them to put their hands on their abdomen and focus on the instructions they're going to hear.
- Then, they need to breathe in deeply through the nose for 4 seconds (you can count the time for them), noticing how their bellies swell.
- Afterwards, **they need to let out the air by making the sound of a snake, a loud hiss that should last as long as they can.**

### ***Blowing up a big balloon***

The second exercise for children is just as fun. It consists of the following steps:

- The child should sit comfortably on a chair with their back straight.
- Now you explain to them that **the game consists of blowing up an invisible balloon, a colorful balloon that needs to get very very big.**

- To do this, they need to breathe in through the nose and then breathe out imagining how the balloon is swelling up and getting bigger and bigger.

**In this exercise, children (as well as adults) tend to breathe in through the mouth.** In fact, this is what we all do when we blow up a balloon. So, you need to correct them and tell them to breathe in through the nose as their bellies swell up, and then exhale puckering their lips as if they were blowing up that huge colorful balloon.

### ***Breathing like elephants***

**This breathing game is one of those which most triumphs among little children. They really love it.** This is what you do:

- The children should be on their feet with their legs slightly apart.
- Tell them that they are going to become elephants and breathe like them.
- **They need to breathe in deeply through the nose and, as they do so, lift their arms up as if they were the elephant's trunk,** trying to make their bellies swell at the same time.
- Then to exhale, they need to breathe out loudly through the mouth, and bring their arms down as they bend down a little, bringing the “elephant trunk” down.

### ***Leopard breathing***

The last of these breathing exercises for children is a bit more complicated but equally fun and effective for getting them to breathe with the diaphragm.

- **Tell the children to get down on the floor on all fours as if they were a leopard.**
- Then they need to breathe in through the nose, noticing how their belly swells up and their spinal column goes down.
- Now they should breathe out through the mouth, and see how their belly empties and their back rises up a bit.

### ***Flower breath.***

*Start by handing out flowers to the kids and then tell them to smell it, by breathing in through their nose and then out through the mouth. Encourage them to release any tension and imagine it going out with their breath. Have them exchange flowers and try again, letting them choose their breathing patterns.*

### ***Hissing breath.***

Have the kids breath in through their nose, taking a long and deep inhale. Then, have them slowly release the breath through the mouth while making a hissing sound, slowly and long. By extending the exhale, this will allow the kids to gradually slow down their inner speed. By connecting kids to the exhale, they learn to slow down

both mentally and physically. They also love making this hissing noise, so don't be too surprised if they want to repeat this several times! You can use this concentrated breath with several fun toys to give them more practice concentrating on their breath. Give them pinwheels and tell them to release the breath through their mouth, directing it in a concentrated stream towards the pinwheel, keeping it spinning slowly. Experiment with other toys such as bubbles, a blow cup with balls, and party favors. These are easy to use in a classroom setting and help to keep the kids concentrated on the activity.

### ***Bear breath.***

This one is a little more complicated, but a great one to do before naptime, story time, or another creative activity. Have them inhale through their noses then pause before exhaling through the nose. Then, have them breath in for three counts, pause for two counts, and then breath out for three counts again. Pause for two counts and then repeat this several times. This exercise helps to ground kids and is great for a restful, or reflective time. Help them visualize this exercise by imagining a bear hibernating who has to maintain steady breaths.

### ***Bunny breath.***

Have the kids take three quick sniffs through the nose and then one extended exhale out of the nose. Tell them to pretend that they are bunnies, sniffing in the air for bunnies or carrots to eat. This is a breathing activity that is cleansing when used the right way. You can use it also when the kids are a little upset or having trouble finding their breath. It helps the kids connect to their breathing out so that they breath instead of spinning out.

### ***Breath of Fire***

One of the most central breaths in the pranayama practice. Kids love the idea that they are fanning the flame in their belly. It is a great way to shift your perspective and work on stamina since the longer you can sustain this breath the more benefits you will see.

- Close the mouth
- Breath in half-way
- Vigorously pump the air out again and again through your nose focusing only on the exhale

This breath helps to bring loads of oxygen to the brain, expands lung capacity and balances the nervous system and releases toxins.

### ***Lion's Breath***

The joy of this breath is that you get to tense up like crazy and then release it all in a great big face. The name is also a great way in for our kids who can immediately identify with the lion and his powerful, unapologetic exhale.

- Sit on your knees
- On the inhale clench everything.
- On the exhale let it all go, stick out your tongue, look up at your third eye and make a big sound.

This is a cleansing breath and also pretty hilarious.

### ***Ping pong balls***

Ask your child to lie down on their tummy with their hands by their chest (they are not allowed to use their hands!) roll some ping pong balls towards them and get them to blow them to you. You could also see if they could blow it into a cup. Why not create a competition with their friends or siblings.

### ***Straws and pompoms***

Use straws to blow pompoms across the floor!

### ***Windmills***

Experiment with paper, foil and plastic windmills. How fast can they get their windmill to go?

### ***Scarves***

Have a collection of brightly coloured scarves. Children can hold the scarf by their face or place it over their heads and blow. They can then scrunch the scarf up in their hands, throw it as high as they can and then keep blowing it to keep it off the floor. Time them and see how long they can do it for!

### ***Move and breathe***

This could be anything from walking while breathing through nose counting breaths with each step or raising arms up to inhale, arms down to exhale or putting them in a yoga pose and asking them to take five deep breaths.

### ***Hand massage***

A lovely calming exercise and wonderful before bedtime. Get your favourite lotion and place some on their hands. Do a simple hand massage, rubbing palms, pressing fingers etc and as they do this ask them to close their mouths and only breathe through their noses. Notice as they concentrate how their breath slows.



### ***Animal breath***

A fun breath game is to pretend to be different animals. Ask children to breathe in deeply through their noses and then as they breathe out they have to make the animal sound. For example, breathe in and exhale hissing like a snake. Other animals could include a bee, a lion, a cow, panting like a dog, the list is endless!

### ***Fill the cup***

Start by scattering several small scrap pieces of paper around an empty cup. Instruct your child to use the straw to suck the paper onto one end of the straw and blow it out into the cup. For a richer sensory experience, position the child prone (on their belly) over a therapy ball to optimize the sensory benefits. This position will provide *proprioception input* (helps with calming), *vestibular input* (help with body coordination/movements), *weight bearing on hands* (helps with calming and hand strength), and *deep pressure* (helps with calming).

### ***Fill in the Picture***

Draw a large shape or picture on a paper and fill in the space with glue. Next, scatter small pieces of paper around the picture and ask the child to breath in through the straw to suck up the paper and then blow out to drop the paper off the straw into the glue. Continue until all the pieces have covered the glue spaces and the picture has been filled in.

### ***Relay Races***

Start with several small pieces of paper cut into squares and scatter them on a desk or table. Next place a small box several feet away from the table. Have the child use the straw to suck up the paper and walk it to the box and blow the paper out into the box. Walk back to the desk and repeat until all of the pieces are in the box.

**These techniques can be helpful for some respiratory problems like asthma.**

### ***1. Hot Air Balloon***

Sitting in a comfortable cross-legged position, start by cupping your hands round your mouth. Take a deep breath in through your nose and slowly start to blow out through your mouth, growing your hands outwards in time with your exhale as if you are blowing up an enormous hot air balloon. Once your balloon is as big as it can be (and you've finished your exhale), breath normally as you sway gently from side to side admiring your big beautiful hot air balloon as it soars through the sky. This

long deep exhalation as you blow up your hot air balloon has a relaxing effect and the image is incredibly vivid for kids' imaginations. If you want to see the hot air balloon in action check out [Squish the Fish!](#)

## ***2. Dragon Fire Breaths***

Interlace the fingers underneath the chin. Inhale and lift the elbows up to frame the face. Exhale, lifting the head up making a whispered 'hah' sound towards the sky, like a dragon breathing fire. At the same time, lower the elbows back down to meet at the bottom again by the end of the 'hah' exhale. This breath technique builds strength and heat within so is a good energiser. It helps us feel brave when we might be nervous or pepped up when we're a bit tired. I use Dragon Fire Breaths in [Parsnip](#) and [Pedro the Penguin](#), and in our upcoming episode Enzo the Bee!

## ***3. Tumble Dryer***

Sitting in cross-legged position, point your index fingers towards each other and position them so your left finger is pointing to the right and your right finger is pointing to the left overlapping a bit in front of your mouth and blow as you spin your fingers round each other, making a lovely long exhalation and a satisfying swishy sound. This works well after washing machine, which involves sitting in a cross-legged position, interlacing your fingers behind your head and twisting from your core side to side going "wishy washy wishy washy" as you twist each way.

## ***4. Tongue Tube***

Some people can curl the sides of their tongue up, others can't... it's a genetic thing! If you can, curl up the sides and make your tongue into a tube or straw. Then with your tube-like tongue sticking out a little bit, inhale and suck the air in over your tongue. Exhale slowly through your nose. This has a wonderful cooling effect and refreshes the throat. Very cleansing! If you can't do the curling thing with the sides of your tongue, you can instead get all the same benefits of the refreshing breath by doing a big toothy grin and sucking in the air sharply.

## ***5. Bumble Bee Breaths***

Known as Bhramari in Pranayama practice. Pranayama being the control of the breath in Yoga. Sitting comfortably with your legs crossed, breath in through your nose, then with fingers in your ears hum out your exhalation. The lovely comforting resonance of this has a calming effect and done with eyes closed can make it even more peaceful.

### **Alternative toys that encourage deeper breaths and breathing out for longer:**

These toys can be used if your child is getting bored of the exercises on this sheet. They are not necessary if your child is active on a daily basis and doing the exercises suggested on this sheet.

- Party bag whistles and blowing toys.
- Toy recorder / harmonica.
- Bird-sounding whistle.
- Polystyrene plane with a straw.
- Paper windmill.
- Steaming up a window / mirror and drawing on it.

### **Breathing Games and Toys Help Manage Asthma and Stress with Fun Gaming Experiences**

Breathing Labs' ***BREATHING+*** *package* is a complete solution that uses interactive games to deliver breathing exercises on the user's Android/iOS smartphone or tablet or Windows/Mac PC. The games are controlled by the player's breathing using a specially designed headset and do not require any other controllers. There are currently more than 50 games to choose from.

The solution is designed for use both in clinical settings and at home to relieve stress, manage asthma symptoms, improve stamina and enhance the recovery process after illness or surgery. The games are particularly beneficial to people with asthma, emphysema, COPD, high blood pressure and anxiety-related disorders.

Following games were initiated or partially developed at Concordia.

- Asthma Heroes
- Asthmonautes
- PeakLeap
- LungLauncher & MyRoom
- PeakFlow
- Pulmination
- BreathingApp

#### ***Asthma Heroes***

Various – Education – Visual novel, 8+ yo, solo.  
Explore the world and learn about respiratory health and how to prevent and manage respiratory diseases such as asthma.

[Download the game \(Windows\)](#) – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### *Asthmonautes*

Asthma – Education – Point and click story, 9+ yo, solo.  
Help characters treat their asthma correctly.

[Download the game \(Windows\)](#) – [Video](#) – [Documentation](#) – [Source code \(GameMaker\)](#) – [Old source code \(Godot\)](#) – [Submit a bug/suggestion](#)

### *Pulmo*

Respiratory Health – Education – Augmented reality and minigames, 8+ yo, solo.

Screen the poster to start minigames.

Not on browser – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### *TikiFlow*

Asthma – Education – Side scroller, 6+ yo, solo.  
Do a strong exhalation to remove the industries, seed trees and make rain.

Not on browser – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### *POCbreath*

Respiratory health – Toy – Side scroller, 1+ yo, solo.  
Breath out in the microphone to create waves.

Not on browser – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### *PeakLeap*

Various – Education – Side scroller, 6+ ans, solo.  
Do a strong exhalation to launch the ball on the highest floor, and catch all the stars you can.

[Test on browser](#) – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### **LungLauncher & MyRoom – active development**

Asthma – Education – Side scroller, 6+ yo, solo.

LungLauncher: Breath out to launch your lung, catch the pumps and avoid the asthma triggers.

MyRoom: Use the points gathered during the games to customize your character and space.

[Test on browser](#) – [Load on Android](#) – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### ***Bloïd***

General – Free breathing therapy – Space shooter, 4+ yo, solo.

Breath in to move forward and breath out to shoot and destroy the meteorites.

[Test on browser](#) – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### ***Heritage***

Cystic Fibrosis – Configurable PEP therapy – Adventure, 4+ yo, solo.

Breath out to catch a thief who seizes artworks from different cultures.

[Test on browser](#) – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### ***PeakFlow***

Various – Evaluation – Side scroller, 6+ yo, solo.

Do a strong exhalation to break the walls, then breathe quietly to bring the ball close to the flag.

[Test on browser](#) – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### ***Les aventures du Briand***

General – Free breathing therapy – Adventure, 4+ yo, solo.

Breath to advance your ship and solve the challenges the crew faces.

Not on browser – Not on Android – No video – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

### ***Pulmination***

Asthma – Education – Puzzle, 6+ yo, solo.

Catch the triggers of asthma and kick them off the body.

[Test on browser](#) – Not on Android – No video – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

***BreathingApp***

Asthma – Education – Tamagotshi, 6+ yo, solo

Take care of your little lung character.

[Test on browser](#) – Not on Android – No video – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

***RollABall*** – discontinued

Cystic Fibrosis – Predefined PEP therapy – Action, 4+ yo, solo.  
Breath appropriately to have the ball grow and catch the objects more easily.

Not on browser – Not on Android – No video – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

***PEP Hero*** – prototype

Cystic Fibrosis – Predefined PEP therapy – Space shooter, 4+ yo, solo.  
Breath out to move your air bubble ship and destroy the mucus.

[Test on browser](#) – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

***Ange Gardien*** – prototype

Cystic Fibrosis – Separated PEP therapy/game – Strategy, 7+ yo, solo.  
Place the tree colors towers in the squares to destroy the cubes and use breathing to shoot.

Not on browser – Not on Android – No video – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

***Globule*** – prototype

Cystic Fibrosis – Separated PEP therapy/game – Puzzle, 7+ yo, solo.  
Each expiration done well gives an arrow. After the huffs, use the arrows to reach the goal.

Not on browser – Not on Android – [Video](#) – [Documentation](#) – [Source code](#) – [Submit a bug/suggestion](#)

## **ACTIVITIES FOR KIDS WITH DOWN SYNDROME**

### **Physical Development Activities**

Children with Down syndrome often have muscles that are a little floppy. This prevents them from picking up physical skills as easily as other children. Some children also tend to move less, for the same reason. Providing opportunities for a range of physical activities during the day helps develop the tone of muscles, and also physical skills. Activities that involve crawling, standing and walking are recommended. You can encourage a child to move by throwing the toy they are playing with a little further so that they try to move and get it.

### **Balance and Vestibular Activities**

Children with Down syndrome often have difficulties with balance, as well as their vestibular system. This is why they are often fearful of slides and swings. Developing balance of the child will help decrease these fears. The child should be given an opportunity to participate in a lot of movement activities like swings and slides, as well as the balance board or Swiss ball activities. A hammock can be used in different ways as it can support the child in different positions, and also allows both front and back movement as well as side to side. All these activities will help develop their vestibular system, and thus their sense of balance.

### **Hand Function Activities**

In Down Syndrome, children have a slightly different arrangement of the bones of their hand. This is one of the reasons why they find many fine coordination activities difficult. Providing activities that improve eye-hand coordination, as well as manipulation skills, will help the child pick up these skills more easily. A variety of art and craft activities can be used for this purpose. In addition play dough modeling, lacing and picking up small objects are also good activities that you can use.

### **Tactile Activities**

In Down Syndrome, children often have hypersensitivity. They may not like to touch some objects or walk on some surfaces. To decrease this, rub different textures on the sole of the child's foot and the palm of their hand. Start with comfortable and tolerable sensations and slowly introduce other sensations that the child may not like. Some sensations that the child may not like to touch are glue, jelly, sand, and mud. The child may not like to walk on grass, cold surfaces, uneven surfaces like pebbles, or muddy surfaces. Activities like playing with play dough, finger painting and foot painting can also help reduce hypersensitivity.

### **Sensory Activities**

### ***Domestic Activities***

CDS can benefit from domestic activities because it helps them to focus on the task besides giving them the opportunity to use their muscles. Start from simpler ones such as unpacking groceries and putting them in the cupboard and work up to the more complicated ones over time depending on their abilities.

### ***Activities Using Both Hands***

Help your child concentrate by engaging them in an activity that requires the usage of both hands. Providing them with materials such as clay, paint and sand will help them focus a lot better because it involves the use of their sensory system as well. For example, tying something with ropes, threading beads and carrying a large objects.

### ***Physical Exercise***

Maintaining physical health is important for everybody especially for CDS. Physical exercises can help them experience a new sensation in their sense of balance, posture and movement. For example, try taking them to the playground and let them enjoy going down the slide or going on the swing so they can experiment with different motions.

### ***Lying on Different Materials***

A good method of to make your child aware of different body parts is to let them lay down on different materials such as pillows and plush toys. Rolled towels and cuddly toys can also be used for this activity. The child can lay on the material while you try to pull the material away from underneath them. This will cause the child to strain his muscles and make him more aware of muscle movements.

### ***Blanket Wraps***

Wrapping up a child in a blanket can give them a sense of security to the whole body and often helps calm them down. Some CDS find it therapeutic to stay in a blanket once in a while. You can even turn this into a game by helping the child unwrap himself or preventing the child from rolling out of the blanket.

### ***Towing On A Blanket***

This enjoyable activity will require you to have a smooth floor surface and a blanket for towing purposes. Being towed can give the child a lot of pleasure in movement and make them enjoy the sensation of being towed around. This is also a great activity for children with motor problems and can be a fun way of moving them from one room to another.



### ***Skating On Rugs***

Another activity that involves having a smooth floor surface is rug skating. Cut two small pieces from an old rug and have your child place her feet in the middle of the pieces. Then ask your child to move around the floor while still keeping her foot in the middle. You can even make the game harder by asking them to slide in a straight line or backwards.

### ***Something To Feel***

Many children find it calming to have something to fiddle with in their hands most of the time. It should be something that fits into the hand easily such a piece of playdough, a piece of moulding rubber or a rubber band. This activity can help them to focus better when they are watching or listening to something.

### ***Playing In A Box***

This is a guaranteed fun activity for CDS. Place them in a box filled with plush toys and let them play and experiment with the different kind of plushies, something which they will enjoy immensely. Suitable materials include chestnuts, cuddle toys and tennis balls. Get creative and come up with different type of materials that you think would be great for this game.

### ***Hiding In A Playhouse***

At times, children can become easily overwhelmed with what is happening around them. When this happens it is advisable to keep out stimuli by covering them with a blanket and giving them some time to be alone so they can recover. You can also have fun with this by constructing a playhouse together in a corner using pillows and blankets so they can safely withdraw whenever they want to.

### ***Massage with different materials***

Being touched is important for everybody. Even for children who do not seem to like it very much. For these children it is important to look for a way of touching that they will enjoy. It helps him to feel better in both senses of the word.

It is important to touch him firmly by rubbing him while putting pressure on him. You can do this with your hands; this means you give your child some kind of massage. This can be done perfectly well while he is dressed.

When you rub directly on your child's skin you can use massage oil or body lotion if necessary.

Furthermore you can "massage" your child by rolling or rubbing all kinds of materials over his body, like different sorts of balls, hard and soft ones, cuddly toys, a

towel, a soft piece of cloth, etc. Always do this in such a way that your child enjoys it.

You can do this, as described before, while he is sitting on your lap, but prone on the ground, on his bed or on the couch are suitable positions as well. In this way you can massage his back, his arms and his legs very easily.

Generally speaking it is best to start rubbing from the top downwards and the back side first. If your child enjoys this you proceed on the front side and from the bottom upwards. Find a way and a position that is comfortable for both you and your child.

### ***Using a foot massage bath***

A foot massage bath is a nice apparatus to use. Your child will become more aware of his feet. After having used the foot massage bath he should walk on bare feet for a while. Because he is more aware of them, he will probably use them more properly.

Standing on your feet can improve by this method. Some children already enjoy the vibrations of the bath, other children like it more with water in it and if necessary some bath foam. Only use it when your child enjoys it. Another possibility of course is playing with his hands in it.

### ***Playing in a box***

It is very convenient to allow your child to experience and play with all kinds of materials when you put him in a box or crate. You fill up the box with some kind of material, so that your child is sitting in the middle of it.

Many children enjoy this game immensely. Suitable materials are: chestnuts, tennis balls, cuddly toys, and everything you come up with yourself. When using small materials it is useful to put a sheet underneath the box or crate. This makes it easier to clean up when something falls out.

### ***Playing with chestnuts***

Chestnuts offer a lot of possibilities for play. When you put them in a crate, your child can hide all kinds of things among them. Many children enjoy hiding their hands and feet in them. Because chestnuts are a bit heavier than for example rice, they make a sound when you stir through them with your hands or feet. Thus a crate with chestnuts becomes a simple musical instrument.

Chestnuts are also suitable to fill objects that can then be used as weighted or massage materials. For example you can put the chestnuts into a pillow case and use this to massage your child's back. We advise you to sew the pillow together. You can also use the cover of a hot-water bottle –without the bottle- to fill with chestnuts.

## **Early communication skills (ages 0 to 2)**

### ***Listen to Me***

Train your baby to discern speech sounds early in life by playing babble games, says Sue Buckley, the chief scientist at Down Syndrome Education International, a leading research and training organization based in the U.K. Hold your baby so she's facing you, with proper head support, and slowly make sounds like "a-ah" and "oo-oo" before moving on to early consonants like "d-d-d" and "m-m-m." Use exaggerated lip movements. You will be delighted by efforts to copy you. The Down Syndrome Education store ([store.dseenterprises.org/collections/see-and-learn-speech](http://store.dseenterprises.org/collections/see-and-learn-speech)) sells picture sound cards that can be used starting at 9 months to teach your baby to listen, discern words, and copy your lip movements.

### ***Sign It, Say It***

Visual learning is strong among people with Down syndrome, but remembering verbal information is more challenging. Help your baby learn the names of familiar objects by using simple gestures along with words, says Buckley, co-author of the book *Speech and Language Development for Infants With Down Syndrome (0 to 5 Years)*. For example, put your hand to your ear when the phone rings and say "phone" or pretend to drink from a bottle or cup while saying "drink."

### ***Together, You and I***

Draw your child's attention to an object like a rattle, favorite toy, or picture and encourage her to look at it as you talk about the item. Gradually build up the length of time she can pay attention with interest as you describe the item. "Activities that encourage joint attention, where the child and caregiver look and listen to the same thing," Buckley says, "also help children learn language faster and improve attention span."

### ***One at a Time***

In her book *Early Communication Skills for Children With Down Syndrome*, Libby Kumin, Ph.D., a speech-language pathologist at Loyola University Maryland who has worked with people with Down syndrome for 30 years, says that all communication depends on turn-taking between listener and speaker. Rolling a ball back and forth is a simple way to practice this skill. As you roll the ball, say "mommy's turn" and as your child pushes it back, say his name ("Jack's turn"). Once he is pointing or speaking, have him point to himself and say "me" or his own name.

### **Building vocabulary (Ages 2 to 3)**

#### ***I Want That!***

Teaching your child the meaning of signs and symbols can help him communicate as his language skills are emerging. In its practice guide, "That Sign Means Ice Cream," the Center for Early Literacy Learning ([earlyliteracylearning.org](http://earlyliteracylearning.org)) in Asheville, NC, recommends showing toddlers a real object or activity along with a matching image. Take pictures of objects or activities your child likes so he can "ask" for what he wants by pointing or handing you the picture. Always encourage him to say the word too.

#### ***Rainbow of Learning***

Play this fun game for learning colors: Gather many things of one color from around the house -- a red shirt, stuffed animal, blanket, cup -- and put them all in a red bag or laundry basket. "A visual activity based on real-world objects can make it easier for a child with Down syndrome to understand a general concept," Dr. Kumin says. If the child is at the one-word level, name the color as you pull out the object. If the child can process a two-word phrase, say the color and the object's name.

#### ***Tell Me More***

Children with Down syndrome need more time before they form multi-word phrases. Research shows that they generally have a 100-word vocabulary (including signs and/or spoken words) before they begin to put words together. Transition your child from a one-word to a two-word stage by using a technique of imitation with expansion. First, repeat a word your child has said and then expand it by one word. For example, if your child says "boat" while playing, follow up by saying, "Boat. Boat go." If she says "dog," you could say "Dog. Black dog." Repetition is essential, Dr. Kumin says, so don't get frustrated if you have to do it many times.

#### ***A Visual Helper***

Use a pacing board to elicit two-word phrases. At its simplest, this tool is a rectangular piece of laminated cardboard with two colored dots spaced a few inches apart. "The board serves as a visual reminder to put two words together," Dr. Kumin says. For instance, in modeling the phrase "Car go," point to the first dot as you say "car" and then the second dot as you say "go." Use hand-over-hand assistance to help your child point, and that motion will serve as a tactile cue. As your child progresses, draw more dots to provide cues as he learns to increase the length of his phrases.

### **Expanded vocabulary, letters, and sounds (ages 3 to 5)**

#### ***Tea Time Is Learning Time***

When the language you use is related to everyday activities, it makes learning functional and more motivating. Add on to your child's noun vocabulary by teaching action words like *sitting*, *drinking*, *eating*, *washing*, and *brushing*. Host a tea party or bathtime with dolls and stuffed animals (include one for your child and one for you) and then describe what the dolls are doing. Then follow your child's lead -- have her feed, wash, and dress the stuffed animals or dolls and encourage her to talk about what she is doing, using two- or three-word phrases ("Dolly is drinking" or "Mommy washes teddy").

#### ***Wow! A New Word***

Build on your child's visual memory strengths by using praise to increase self-esteem and expressive language. Joe and Susan Kotlinski, parents of a daughter with Down syndrome, created Love and Learning ([loveandlearning.com](http://loveandlearning.com)), a system to teach reading to children with Down syndrome. They suggest taping an 8 1/2" x 11" sheet of paper in a prominent place. Each time your child says a new word or one you haven't heard in a while, stop what you are doing and make a big show of saying, "Oh, that's a new word!" and write it on the sheet. Print the word in lowercase letters on a 5" x 7" card. Then show the card to your child and say the word at the same time. Later, when you read to your child, show her the card again and repeat the word. In time, your child will attempt to say new words to add to the list.

#### ***Sound Bubbles***

Write letters on the back of colored circles and place the circles face down. Have your child turn each circle over and make the sound. Prompt your child by making the correct sound, but decrease the prompts over time. Start with just a few circles, and sounds your child is already making, and slowly add new ones. "Most children with Down syndrome are likely to begin learning letter sounds between 3 1/2 and 5 years of age," Buckley says.

#### ***Early Reading***

"Because of their visual memory strengths, children with Down syndrome can be taught to read early, when they can understand 50 to 100 words, and can match and select pictures," Buckley says. Make a game with words the child readily responds to, like family names or foods. Print two related words, like *Mommy* and *Daddy*, in large type on a piece of white paper and laminate it (use cardboard backing if you wish). Print or type each word again, separately, on small cards and laminate

those. Place the big card, face up, in front of the child and have her hand you the small cards that correspond to the words on the big card, one at a time. Increase the words that appear on the big cards to three or four.

### **Learning Activities**

#### **Language Arts**

##### ***Rainbow Writing***

This hands-on activity helps students practice creating shapes or letters.

##### **Supplies:**

- A tray with rainbow colored tape covering the inside
- Salt

##### **What to Do:**

Place some salt in the tray and instruct students to use their fingers to create different shapes or letters. You can adapt this activity by drawing the shape or letter you'd like them to practice on your whiteboard.

##### ***Play-Doh Impressions***

Students can use this activity to practice manipulating tools and creating shapes!

##### **Supplies:**

- Play-Doh
- Pencils

##### **Directions**

Begin by handing out Play-Doh and pencils. Instruct students to draw lines or other shapes you're working on. Visually demonstrate what you would like your students to focus on.

#### **Science**

##### ***Floating Raisins***

This activity helps students learn about buoyancy.

##### **You'll Need:**

- Raisins cut in half
- Cups
- Club soda (make sure it's not flat)

##### **What to Do:**

Have students pour club soda into their glass and then put in their half of a raisin. You can adapt this activity by having students work on it one step at a time.

Then allow them to watch the raisin as it rises and falls thanks to the bubbles sticking to it!

### ***Paper Towel Seeds***

Use this activity to help demonstrate how plants grow to your students.

#### **Get These Supplies:**

- Seeds
- Paper towels
- Plastic bags
- Stapler
- Water

#### **Instructions:**

Have students fold their paper towels and put them in the bags. Your students will then need to staple a row of staples across the middle of the bag. You might want to help with this part. Assist students with pouring about  $\frac{1}{2}$  c of water into the bag before they add their seeds. Finally, have your students close their bags and tape them to a window. After a few days, they should be able to see the seeds germinate! Make sure to take this activity step by step to help all your students understand what they're doing!

## **Math**

### ***Number Memory***

This activity is an easy way to help students work on their number sense and memory.

#### **You'll Need:**

- Flashcards
- Stickers

#### **What to Do:**

Set up your flashcards by writing numerals on half of them, and placing stickers equal to the numerals on the other half. Adapt this activity by keeping the numbers small and not using an overwhelming number of cards. Place all the cards face down and have students try to match the numerals to the right amount of stickers. You can also model this activity for your students and repeat it several times so students can catch on to what they're expected to do in this activity.

### ***Picture the Number***

Students can use this activity to get used to numbers.

**Supplies:**

- Papers with the outlines of large numbers printed on them
- Leaves
- Crayons or markers

**Directions:**

Hand out papers and leaves. Instruct your students to cover the leaves with the paper and rub their crayons or markers over them to color in the numbers. Use modeling to show students what they need to do. This activity can help get students familiar with different numbers in a fun way.

**The use of interactive games by children with Down syndrome. Learning apps and software**

***Leap Motion Platform*** – It is a computer hardware sensor device that captures hand and finger movement. No manual or touch contact is required. The *controller* has a technology that shows a world beyond the screen when feeling the movement of the hands as augmented reality. In this study, no 3D glasses were used.

***Balloon buzz game*** – In this game, a bee appears on the screen that will pop balloons from the movement of the player's hands. The one with more points wins the game.

***Caterpillar count game*** – This is a 1 to 100 number sequence game, divided into levels organized by dozens. The centipede's head and a hand with the index finger helping to signal the direction the player's hand movement is making is shown on the screen. The centipede does not catch wrong numbers, making the player rethink the number sequence.

***Timocco Platform*** – This is a computer-based gaming system using the webcam to control players' hand movements, holding two-colored ball-shaped sensors to interact with the platform.

***Buble bath Game*** - In this game, Timocco the monkey is in a bathtub and the game is to pop the soap bubbles. The game has multiple levels, no error signaling, and the player's evolution is shown by a monkey climbing a ladder on the left side of the screen. When the player reaches the top of the ladder, he gains a set of coins, with monkey music and dance, and going to the next level of the game.

***Falling fruit Game*** - In this game, the monkey Timocco raises his arms to catch fruits that appear on the screen and then takes a basket at the bottom of the screen. There is the same evolution control as Buble bath with the monkey climbing the ladder. After completing the first stage, the game will work with two fruits for classification in different baskets.



***Nintendo Wii® Platform*** – This is a Nintendo video game connected to a TV. With the remote control, it is possible to have an interactive experience. The motion-sensitive Wii Remote can be used as a direct pointing device or attached to other objects such as a racket and a steering wheel.

***Mario Kart Wii® Game*** - This is a racing game in which the player must overtake his opponents without hitting them or leaving the track. The game was used in the demo version, and the remote control was attached to the Wii Wheel. The player had to press the button 2 to accelerate and to press the button 1 to brake and move the steering wheel. If the player hits another car or the sides of the track, he should try to get back to it. The position of the player in the circuit is visible in the right corner of the screen.

***Nintendo Wii Sports® Game - Tennis*** - This is a tennis game with players of Nintendo® characters in which the player must hit the ball with the racket and throw it across the court. The game was used in the demo version, and the remote control was attached to a racket. Information about the player server, a replay, if the game was 40 x 40 if two points were required to set the game, if the game needed deuce or if there was a match point were needed to be translated by the researcher during the experiment.

### ***See & Learn***

*See and Learn* makes it easy to support children with Down syndrome at home, in individual and group therapy settings and in the classroom. *See and Learn* offers activities designed to promote the development of language, reading, speech, memory and number skills.

*See and Learn* is a range of resources to support learning for children with Down syndrome.

*See and Learn* is developed and published by Down Syndrome Education International – a world-renowned leader in providing evidence-based information about the education and development of children and young people with Down syndrome.

*See and Learn* uses structured activities that make full use of the children's strengths as visual learners to help them learn more successfully.

There are four *See and Learn* programmes:

- *See and Learn Language and Reading*
- *See and Learn Memory*
- *See and Learn Speech*
- *See and Learn Numbers*.

The first four steps of *See and Learn Language and Reading* are currently available in US and UK English editions. Additional steps in *See and Learn Language and Reading*, the other programmes and further translations are currently under development.

### **Contents**

Each programme includes a series of steps. Each step includes a set of structured activities. Resources, step-by-step instructions and record sheets are provided for each activity. A guide to each step explains what is known about the development of the particular skill and therefore why each activity is included and what the child is gaining from it.

Activity instructions are illustrated with clear photographs. Record sheets help families and professionals chart a child's progress through the different activities and steps.

### ***POPS Resources – A special needs literacy programme***

The POPS reading programme is designed for children with speech impairments, Down Syndrome and autism. The scheme was launched in 2004 and is constantly evolving.

The programme delivers a natural language experience where children are taught the language they will need in their everyday lives. The story topics are understandable and relevant to the child's experiences. The illustrations are simple, attractive and uncluttered.

The programme progresses in small easy steps, helping the child to become an effective reader by developing both word recognition (phonics) and language comprehension (meaning) skills. It is designed to be easily adaptable to the individual learning needs of your child. A comprehensive [free manual for teachers and parents](#) sets out the principles of the reading scheme and provides lots of practical strategies for maximising its potential as a teaching tool.

### ***Numicon***

Numicon is a maths teaching programme that uses a series of structured images to represent numbers. Children enjoy the Numicon approach, which plays to their strong sense of pattern. Their enthusiasm and increased confidence leads them to persevere. This in turn leads to deeper understanding and raised achievement.

Numicon's small steps teaching programme with its use of strong visual imagery and the emphasis on pattern and language is proving successful for pupils who are experiencing difficulty with maths, including those who have special needs. Our new Closing the Gap with Numicon Teaching Materials offer guidance to help teachers address pupils' difficulties in learning and accessing mathematics, plus this

kit is designed specifically for working with older pupils who are behind their peers. The Kit also includes some sections on issues relating to specific SEN categories.

It is helpful for any pupils meeting Numicon for the first time, to do the Closing the Gap activities through which they will learn the Numicon patterns, attach number names to the patterns, order the patterns and numerals, combine shapes for addition, 'take way' and compare shapes for subtraction. The rate of progress will depend on the pupil; some older pupils will cover these activities quickly, other more entrenched additional needs are likely to need lots of repetition.

PLEASE NOTE Numicon Maths Shapes are now available in Grey and the Numicon Pegs are available in black and white for those children who have ASD and may find the bright colours a distraction.

### **Makaton**

Makaton is a language programme using signs and symbols to help people communicate. It is designed to support spoken language and the signs and symbols are used with speech in spoken word order.

People with learning disabilities or communication difficulties may struggle to make themselves understood – and to understand others. This can provoke intense frustration, challenging behaviour and isolation, and act as a barrier to achievement.

Parents and carers can experience similar feelings of frustration and isolation, wondering how they will ever 'get through'.

Makaton takes away that frustration and enables individuals to connect with other people and the world around them. This opens up all kinds of possibilities.

With Makaton, children and adults can communicate straight away using the signs and symbols. For those who have experienced the frustration of being unable to communicate meaningfully or effectively, Makaton can be a revelation and a bridge to greater confidence and self-esteem.

Many people then drop the signs or symbols naturally at their own pace, as they develop speech. Makaton is highly flexible as it can be personalised to the individual's needs and used at a level suitable for them. It can be used to:

- share thoughts, choices and emotions
- label real objects, pictures, photos and places
- take part in games and songs
- listen to, read and tell stories
- create recipes, menus, shopping lists
- write letters and messages
- help people find their way around public buildings

### ***JECRIPE***

Pragmatic language skills are stimulated by JECRIPE through re-quests and greetings, as well as rewarding and encouraging affirmations, in all three developed environments (the Music House, the Bubbles House and the Day Care Center). All the game tasks are planned to increase auditory attending. The vocabulary skills are stimulated by reinforcing affirmations of the voice which interacts with the player in JECRIPE, by giving instructions.

Some of the activities dealing specifically with receptive and expressive verbal language in each scenario are showed in the following examples. In the Music house, receptive language skills are stimulated by activities, which include pointing at body parts according to musical lyrics. In the Bubbles House the child has its perception stimulated while recognizing objects and colors. Last, in the Day Care Center, interpreting nonverbal requests of a baby with Down syndrome is the main task.

#### **How JECRIPE stimulates cognitive skills**

As described, the main character called “Betinho” which is a boy with Down syndrome interacts with the player in JECRIPE to stimulate cognitive, pre-language and language skills. The game provides three main settings: the Music’s House, the Bubbles’ House and the Day Care Center. As the player progresses in the game, different tasks are proposed. The ability to imitate speech and gestures is stimulated in a singing and gesture task at the Music’s House. Visual and auditory skills are developed by looking at objects and listening to instructions, feedback and music at the Bubbles’ House. Fine motor skills, eye-hand coordination and other abilities such as short-term memory are exercised by understanding object permanence, cause and effect relationships at all settings. Non verbal language and verbal language skills are stimulated in the Day Care Center setting, as the player is asked to give the baby with the objects he asks for.

The voice in the game talks often to the player, telling the child about things and giving choices. The voice provides feedback in a positive, supportive, playful and caring way. It is our belief that interventions using computer games such as JECRIPE can be used with Down syndrome children to stimulate language and cognitive skills and promote the improvement of quality of life

#### ***The Music House***

The Music House, aims at stimulating fine motor skills and hand-eye coordination ability, the player is induced to click twice on the doorbell, by an instruction voice. Once the task is completed, the camera is positioned so that the player can then see the front of the house with six windows. Each window is associated with a different simple choreography and correspondent song.

The user chooses a window using a single click. After that, the window opens and Betinho appears and starts to dance. Then, in order to stimulate the imitation ability, the player is induced to dance with him. Receptive and expressive verbal language is exercised because the child has to pay attention in the instructions and interact with the game. All the songs were selected from Brazilian popular culture. After the song is played, the window is closed and the user is conducted to his or her original position, in front of the house. The player can dance each song as many times as he/she wishes, until all the dancing windows are visited.

As mentioned before, the Music House stimulates the abilities of imitation, receptive and expressive verbal language, fine motors skills and hand-eye coordination. The next subsection describes the Bubble House.

### *The Bubble House*

The Bubble House activity contains three sub-tasks designed to stimulate the perception abilities. In order to prepare recipe for making bubbles, the player has to mix a set of ingredients correctly and move them into a recipient. The first ingredient is a water bottle, followed by a soap bottle and a cover cap.

A second task was developed to stimulate fine motor skills and hand-eye coordination ability. An instruction voice induces the player to pop floating bubbles. Some of those bubbles have colored toys inside them (Figure 5). When a bubble is popped, the respective toy falls down to the ground. The condition to complete this task is to pop all the bubbles that contains a colored toy.

A new task starts where the player is invited by the instruction voice to put the toys inside boxes according to matching colors.

Once all the toys are placed in their respective boxes, a congratulation and farewell voice greets the user. In all these sub-tasks, the player uses the mouse only by moving it (without clicking). The game constantly rewards each accomplished sub-task with positive reinforcement sentences. By the time the player finishes all the activities of the Bubble House he/she has exercised perception, receptive and expressive verbal language, fine motor skills and hand-eye coordination abilities.

After that, the Island scene is loaded again and the player is ready to choose his next activity.

### *The Day Care Center*

This scenario was chosen as favorite to the children that have already played JECRIPE under our observation. Its activity explores the drag-and-drop capabilities, stimulating fine motor skills and hand-eye coordination together with receptive and expressive verbal language.

Inside the Day Care Center, there is a baby sitting in a chair and there are four objects placed on top of the shelves (a rattle, a soup plate, a pacifier and a baby bottle). The four objects and the baby are illustrated in Figure 6. The baby is called Samuca and, as Bet-inho, he has Down Syndrome. Samuca does not know how to talk, but he asks for what he wants by pointing at the desired object. The baby character is animated by turning his body and face directly to the object, indicating the universal gesture: “the baby wants that object”.

When a player clicks on an object which is not the one that the baby wishes, he manifests dissatisfaction. Then, an instructional voice indicates the desired object and the baby faces that specific object again until the user grants his wish. Once the correct object is clicked, it moves with the mouse cursor while it is being pressed.

When the mouse button is released, the position of the dropped object is checked. If the object is released in any other place than the baby's body region, the object is moved back to the original place on top of the shelf.

After all the objects have been delivered to the baby, he starts clapping his hands and a success audio clip is played announcing the end of the activity. As described, in this house the player stimulates receptive and expressive verbal language as well as fine motor skills and hand-eye coordination.

### ***“Nossa Vida (Our Life)”***

It is a virtual playful environment developed with the objective of helping children with Down Syndrome to memorize important daily routines that occur in familiar environments.

***Clicker software*** is used in schools and can be helpful for children who have Down's syndrome (this software is designed to develop speech and language skills and word recognition using visual prompts).

**Special iApps** is also commonly used by children who have Down's syndrome. The organization was created by a husband and wife team who couldn't find the apps needed to effectively teach their son, who has Down's syndrome and autism.

## **GAMES THAT WILL EDUCATE KIDS ABOUT DIABETES**

### ***Diabetes Dash***

In this game, various food groups, sugars, and insulin tubes rain from the sky. The goal is to keep a character's blood sugar levels stable by directing him or her to the left or right to eat a varied diet or take insulin. If you manage to do this by the end of the countdown, you get to move on to the next level. But if blood sugar gets too high or too low by that time, it's game over!

### ***Jerry the Bear***

While not particularly inexpensive, Jerry the Bear is another way to teach children about diabetes management. Invented by engineering students, the bear is diabetic and must receive "insulin" and "food." It also teaches kids about healthy versus unhealthy blood sugar levels.

By taking care of Jerry's diabetes, children gain hands-on practice with counting carbs, monitoring Jerry's blood sugar, and dosing Jerry with insulin. Kids care for Jerry using the virtual diabetes tools and the digital pantry in our app!

### ***Jerry's virtual diabetes toolkit***

#### **Glucometer**

Check Jerry's blood sugar by following the steps of lancing Jerry's finger and adding a test strip to the glucometer!

When Jerry's blood sugar goes high or low, Jerry speaks symptoms, encouraging kids to recognize how they feel.

#### **Insulin pen or pump**

Use Jerry's insulin pen or pump to dose insulin. Learn about injection site rotation by using the injection sites on Jerry's arms, legs, belly, and butt.

#### **Jerry's Kitchen**

Feed Jerry a healthy diet or give him junk food! Either way, kids learn about the impact that carbs have on blood sugar, and learn carb counts for basic foods in Jerry's virtual kitchen.

#### **Stories and Tasks**

Follow along with Jerry's journey to train for the All Stars Games! All 21 interactive story books are paired with care tasks to reinforce important diabetes lessons. Our curriculum is co--designed with doctors, educators, and families to create educational content that kids love.

Sproutel's Jerry the Bear is a stuffed animal mixed with an interactive video game to help kids learn about diabetes. The bear teaches children with Type 1 diabetes how to manage blood-glucose levels, maintain a healthy diet and more, through interactive games and play.

The bear has technology in its stomach, limbs and mouth that detect injections and sense when he's being fed food cards. He also comes with an insulin pen and backpack.

### ***Carb Counting with Lenny the Lion***

This series of games, put together by Medtronic and hosted by Lenny, the lion with Type 1 Diabetes, is focused around teaching children to accurately count the carbs that they are consuming. The games are broken down into four separate sections – Carb or No Carb?, Compare the Carbs!, Guess the Carb!, and Build A Meal!

Needless to say, gauging carb intake is an important part of diabetes management, and the Lenny the Lion website helps little ones learn to do just that. Four games about carb management are available: “Carb or No Carb?” (decide if the food item presented has carbs or not); “Compare the Carbs” (determine which of two foods has more carbs); “Guess the Carb” (guess the actual carbohydrate content of various foods); and “Build a Meal” (toss together a virtual meal that hits a certain carb limit). These games can be played online or can be downloaded onto iPhones, Androids, or iPads.

The games are more educational and less about training children for day-to-day management like the mySugr app. Still, they do offer a great resource for teaching children about what a carb is, and what the likely carb values of many common foods are.

On top of the games, the website also has fun activities for children of all ages, and a great food carb reference guide built around the kinds of foods that children love to eat.

Lenny's SleepoverChecklist

<http://www.lenny-diabetes.com/downloads/Sleepover-Checklist.pdf>

Lenny's Travel Checklist

<http://www.lenny-diabetes.com/downloads/Travel-Checklist.pdf>

Lenny's SportsChecklist

<http://www.lenny-diabetes.com/downloads/Sports-Checklist.pdf>



## Activity Book Pages

Click on the thumbnails below to open the large printable version.



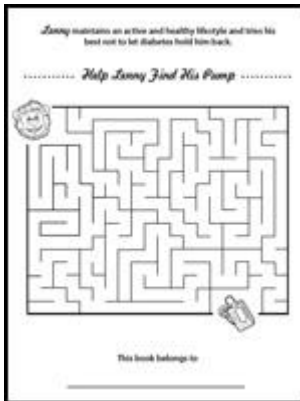
Lenny at the Beach



Lenny at Birthday



Lenny packing for Camp



Help Lenny find his pump



Lenny at School



Lenny plays Sports



Lenny rides his



Word Match

????

### **Coco's Cove**

The object of the game is to shoot Coco the monkey at certain foods and avoid others. Coco has type 2 diabetes, so he may get sluggish if you eat too many sweets or get angry if you don't eat enough food – both of which inhibit you.

The game, Coco's Cove, "takes the player through an entertaining, multi-level puzzle game with actions in the game related to the highs and lows experienced by those diagnosed with type 2 diabetes. This subtle mechanic changes how the player moves through the level in a lighthearted, amusing way." The game is available at the **Android App Store**.

### **Healthy Foods Memory Game**

For adults who are visual learners, this memory game is a great way to learn about the foods you should eat if you have diabetes. Unveiling a pair will reveal a description of the food, as well as a tip for incorporating it into your diet.

### **Spaceships and diabetes**

In the game, a cartoon character named XYLO, whose spaceship has crashed on Earth, can return to his own planet only if a player with diabetes helps him reassemble the craft by eating the right amount of food, knowing when to take insulin, and answering important questions about diabetes.

In "Diabetes Education for Kids," ([www.dbaza.com/dek/index.html](http://www.dbaza.com/dek/index.html)) also a CD-ROM, players create a character that represents them in a story about another character, Piper, who needs their help. But in order to help, children must first prove they have learned certain basics, like how to test blood glucose correctly. The CD-ROM features a personal journal, interactive exercises and quizzes, and a dictionary of important terms. It also records, for later printout and review, right and wrong answers to questions.

Glucoboy ([www.glucoboy.com](http://www.glucoboy.com)) is a blood glucose meter designed for kids. It can be inserted directly into a Nintendo Gameboy, and will reward players with new video games and game levels when they demonstrate proper diabetes management.

### ***mySugr Junior***

The app features a beautiful and whimsical "diabetes monster" that children tame by following good diabetes management practices. What this mostly means is a fun way for your child to record notes that include their blood sugar, their meals and carb intake, insulin doses, and other little notes about their condition (including an adorable mood selection interface that lets your little ones choose how they're feeling that day). Entering notes gets encouragement from the diabetes monster, and you can go back and review previous entries.

If that were all the app did, it would still be a great way to help your children manage their diabetes. What really elevates it above the competition, though, is the parent link feature. The app actually comes in two parts – one for your child and one for you. Whenever your child makes a new note or entry, the information is sent over to your phone so you can keep an eye on how your little one is doing. It also has great features like the ability to take a photo of food and send it to the parental app to get help with estimating carb counts. Once you review your child’s information, you can then send back a note of your own.

Overall, mySugr Junior is probably the best game app for children learning how to manage their own diabetes. Between the great interface, the ease of use, and the parental reporting features, this a great choice both for parents and for children.

### ***Monster Manor***

This is one to watch, as it’s not released publicly yet. Like mySugr Junior, Monster Manor is a combination game and logging app for children with Type 1 diabetes. The premise is simple – children enter their blood glucose (and other) stats, and are rewarded with pinatas. These pinatas contain fun treats like “beanz” that let your kids grow and manage new monsters in their own manor, or gold that lets them buy pets and accessories for their monsters.

The app integrates with BlueLoop, the diabetes tracking and monitoring app, for an easy tracking interface. It also includes all of the parental notification options that mySugr Junior has. One really cool feature gives parents the option to send their children an extra-special pinata once per day that includes better items. This is a great way for parents to stay involved and encouraging in their children’s diabetes management.

***MyPlate Activity Sheets***– a variety of printable activities that offer kids ideas and tips for healthier eating

***Blast Off*** – an interactive website game that challenges kids to build a healthy plate

***Energizers*** – classroom based physical activities for grades K-8 that integrate physical activity with academic concepts

***Activity Bursts for the Classroom*** – shows elementary schools how to restructure physical activity into multiple, brief episodes throughout the day without taking away valuable time for classroom instruction

**GoNoodle** – offers 5-minute brain breaks that can be used to calm, focus, or energize students. Sign up is free.

The game, called ***Mission T1D***, is meant to be educational, to teach children as well as their parents, caregivers, and friends about Type 1 diabetes.

The game is set in a school. When players complete levels and get points, they unlock short practical messages about living with Type 1 diabetes, and longer, shareable educational videos. They can then take quizzes about the information in the educational material. The videos cover the following topics: "What is Type 1 diabetes?", "Everyday life with Type 1 Diabetes", "What is hypoglycemia and how to help", "What is hyperglycemia and how to help", and "How to have a healthy diet, with or without Type 1 diabetes".

The whole package, which can also run on a PC, is designed to be used either by individuals or in a classroom setting.

### **Books for Kids and Teens With Type 1**

***The Dinosaur Tamer and Other Stories for Children with Diabetes*** by Marcia Levine Mazur, Peter Banks and Andrew Keegan. Contemporary Books, 1995. ISBN 0-9454-4858-9.

*The Dinosaur Tamer* is a nice compilation of short stories about children with diabetes. The stories contain examples of some of the challenges that adolescents and teens with diabetes face every day and how they manage to overcome these challenges and live life to the fullest.

***Donnie Makes a Difference*** by Sandra Haines. Illustrated by Paul Hart. Writer's Press Service, 1994. ISBN 1885101066.

Donnie is a young boy who loves football. After trying out for the school team, he is diagnosed with diabetes. He is quite upset that he has to stop playing football with the team until his blood sugars stabilize. His family, friends and coaches help Donnie realize that he can make a big difference by being an assistant coach, since he knows so much about football.

***Even Little Kids Get Diabetes*** by Connie White Pirner. Pictures by Nadine Bernard Westcott. Published by Ablert Whitman & Company, 1991. ISBN 0-8075-2158-2 (hardcover) or 0-8075-2159-0 (paperback).

The star of this book is Lydia, the author's daughter, who was diagnosed with diabetes when she was two years old. The words are those of a very young girl, maybe in kindergarten, so your own very young child will feel right at home. The

colorful illustrations recount her days in the hospital, as well as the frustration of eating an apple at a birthday party while everyone else eats cake. This is a good book for the very young child and her parents, though current diabetes care allows for the incorporation of sweets into the diet.

***Getting a Grip on Diabetes*** by Spike and Bo Loy. Published by the American Diabetes Association, 2002. ISBN 1-58040-053-1.

There are very few books about diabetes that are written by kids for kids. *Getting a Grip on Diabetes* is one. Now young adults, Spike and Bo Loy were diagnosed as young kids with type 1 diabetes. This book contains their guidance about living successfully with diabetes and covers a wide range of topics, from school to athletics to travel to parties. While parents might not approve of every word in the book (I didn't care for their suggestion to take "only a few hits" if you want to try marijuana), *Getting a Grip on Diabetes* does offer diabetes from the perspective of teenagers. Comments from Janet Silverstein, MD, follow each section, providing medical guidance in addition to the thoughts of Spike and Bo. The successes of these two young men are proof that having diabetes need not interfere with living life to its fullest.

***The Gift of the Pirate Queen*** by Patricia Reilly Giff. Published by Bantam Doubleday Dell, 1982. ISBN 0-440-43046-1.

As a young girl growing up quickly as a result of her mother's death, Grace learns many valuable lessons along the way. Not only does she face the responsibilities of housekeeping, she must ensure that her sister Amy takes care of her diabetes properly. When an older cousin from Ireland comes to take care of the household, Grace learns of an Irish legend, Grania (Grace) the Pirate Queen and her courage. This legend eventually convinces Grace that honesty really is the best policy and that you shouldn't judge someone by their appearance. Recommended for ages 8-14.

***Grilled Cheese at Four O'Clock in the Morning*** by Judy Miller, illustrated by Jeanne Turner. Published by the American Diabetes Association, 1988. ISBN 0-9454-4802-3.

This is the story of Scott, a young boy who develops diabetes. He learns how to deal with his diabetes, including what to do when his blood sugar is low at night. (You guessed it: he eats a grilled cheese sandwich!)

***How I Feel: A Book about Diabetes*** by Michael Olson. Published by Lantern Books, 2003. ISBN 1-59056-037-X. 48 pages

When Michael Olson was 12, his brother Steven was diagnosed with type 1 diabetes. Michael wrote *How I Feel* for his brother, capturing in words and drawings the feelings of a young child who has just been diagnosed. Grade school aged kids will relate to the experiences described in the book and will recognize the drawings as those of a youngster, which adds to the appeal of the book. This isn't a book to help parents manage their child's diabetes. Rather it will help kids realize that they're not alone with diabetes.

***How Many Carbs is a Booger?*** by Richard and Rania Morrill, illustrated by Aaron Kraten. Published by the authors, 2006. ISBN 1-4276-0140-2.

As all parents know, kids like things that are gross. And boogers are gross. *How Many Carbs is a Booger?* is a short, humorous look at carb counting from the perspective of little kids with diabetes. It will be funny for kids and will bring a bit of humor to what is often a chore -- figuring out how many carbs are in food so you can dose insulin correctly.

***I Have Diabetes***, written and illustrated by Karri Andersen. Self-published. ISBN 1452837198

The subtitle of *I Have Diabetes* tells it best: A Children's Book about Juvenile Diabetes. This is a nice book for young children who are newly diagnosed with type 1 diabetes. The illustrations are colorfully done and the words are large and easy for beginning readers to understand. The discussion about diabetes is simple – perfect for young children – and the focus is more on feelings, again, perfect for young children. When you order one book for \$15 directly from the author, the author also donates one book to a family who otherwise couldn't afford it – a nice gesture.

***I Have Diabetes*** by Althea. Illustrations by Angela Owen. Published by Dinosaur Publications, 1993. ISBN 0-8512-2809-7.

A young British girl describes what it's like to have diabetes in *I Have Diabetes*. Her English is the Queen's, so American audiences will get a bit of an English lesson in addition to learning how a young girl manages her diabetes without letting it interfere with her enjoyment of life. About 32 colorfully illustrated pages that most second graders should be able to read.

***I'm Tougher than Diabetes*** by Alden R. Carter. Photographs by Carol Shadis Carter. 2001. ISBN 0-8075-1572-8. Hardcover, 32 pages.

*I'm Tougher Than Diabetes* is an excellent book about a young girl with diabetes. In her own words, Natalie describes how she copes with her diabetes, from testing her blood sugar to helping her mom make proper food choices. Natalie tells how she told her classmates about diabetes and what it's like when she's low or high.

The book is filled with photographs of Natalie's everyday life, which help make the book very appealing to younger kids.

***In Control – A Guide for Teens with Diabetes*** is part of the Juvenile Diabetes Foundation Library. A portion of the proceeds from the sale of this books goes to the JDF.

Life with diabetes is a challenge. Life as a teenager is a challenge. Combining the two makes for an enormous challenge. *In Control -- A Guide for Teens with Diabetes* is the best book I've seen that addresses the concerns and issues of teens. It doesn't mince words or skip topics that some parents might find uncomfortable, like alcohol use, drugs and sexuality. But diabetes is serious business, and knowledge is what makes it possible to manage diabetes successfully.

If you are a teen with diabetes, or the parent of a teenager with diabetes, this book belongs in your library. There's important guidelines for parents, too, including this story:

*My mother and I went downtown to Christmas shop and the local Kress store had a turkey dinner special. As we sat down to eat, my mother loudly announced to the waitress that her son had diabetes and that she would be very pleased if they would put less gravy on the potatoes and be sure to leave off any cranberry sauce. I remember looking around and it seemed like several thousand people were all staring at me and a couple of people actually moved away out of fear that they might develop diabetes. After eating, my mother and I left the store and were waiting to cross the street when I turned to her and told her that I never wanted her to ever embarrass me again about my diabetes. I was smart enough to scrape the gravy off my potatoes, not eat the cranberry sauce, and eat only a portion of the food, and I didn't need her to announce all of this to the world and embarrass me. Her response was that since I had such a big mouth and seemed to know it all, she would back out of any involvement in what I ate and let me take care of myself. Surprisingly, she did! That was 43 years ago, and again, it was one of the best things that ever happened to me.*

***It's Time to Learn About Diabetes*** by Jean Betschart, MN, RN, CDE. Illustrations by Nancy Songer, RN, MSN, CPNP. 1995. ISBN 0471347434.

Subtitled *A Workbook on Diabetes for Children*, this 110 page paperback book was revised in 1995 and is a superb teaching tool for professional diabetes educators and parents alike. Children will learn all about diabetes from Cindy and Mike, two kids who also have diabetes. Simple biology lessons teach children about the pancreas and the function of insulin, so they understand why they must perform blood tests and take insulin injections. Full of drawing, matching, fill-in-the-blank

and word search activities, this book provides a fun way to teach children about diabetes. ***Highly Recommended.***

A CD-ROM version of *It's Time to Learn About Diabetes* offers an interactive tool to help kids learn about diabetes. The CD-ROM runs on Windows and Macintosh computers. For more

***I've Got a Secret*** by Jade Elizabeth Gamber. Published by Linux Systems Lab, Chesterfield, MI. ISBN 1-885329-19-0. \$5.95 plus S/H. Order directly from Julie Gamber (Jade's mom) at (810) 329-2419.

Jade was diagnosed with Type 1 diabetes when she was in third grade. This colorful book, filled with Jade's drawings and photographs, tells her story in her words. She writes about being diagnosed, going to the hospital, and living with diabetes, including a fun vacation her family took to Jamaica one month after she was diagnosed. The book is about being a kid with diabetes, but being a kid first, as it should be. The drawings and photos are great (I especially liked the drawing of how she feels when she's low!), and the story is good for kids of all ages. Profits from the book are donated to cure research.

***Lara Takes Charge*** by Rocky Lang and Sally Huss. Published by HLPIBooks, 2004. ISBN 0-9745184-0-8. \$12.95.

Friendly pictures with lots of color are used to tell the story of Lara, a little girl with diabetes. Lara tells all the things she does that regular kids do – run, swim, dance – and she talks about her insulin pump and doing blood tests. If you have a young child with diabetes, Lara's story will help them understand that they're not the only kid in the world with diabetes.

***Life with Diabetes, Lacie the Lizard's Adventure*** by Dana Shepard, Illustrated by Troy Jones. Published by Critters Inc., 2004. ISBN 0-9745997-0-0. \$11.95.

Lacie is a lizard with diabetes who uses an insulin pump. In this colorfully illustrated book, kids with diabetes will follow Lacie and her friends as they do what kids do – run, swim, eat, and play. Lacie explains what having diabetes means and how her insulin pump helps her to stay healthy. For younger kids with diabetes, Lacie can help them understand what diabetes is and what wearing an insulin pump is all about. The publisher, Critters Inc., also offers a Children's Diabetes Pack for newly diagnosed kids.

***The Little Red Sports Car*** by Eleanor Troutt, illustrated by J. Chris Price. Published by the author and available through Lulu.com. ISBN 9780615132815. \$12.95.



The subtitle of *The Little Red Sports Car* is "A Modern Fable About Diabetes." The story is about a car with an automatic transmission (e.g., the pancreas) that breaks. The car has to be changed to a manual transmission and needed a special additive to run again (e.g., insulin injections).

For parents of young kids with diabetes, *The Little Red Sports Car* offers a gentle explanation for what has happened to their body. It's a very easy read and is colorfully illustrated.

***A Magic Ride in Foozbah-Land -- An Inside Look at Diabetes*** by Jean Betschart Roemer, MN, MSN, CPNP, CDE with illustrations by Jackie Urbanovic. Originally produced as a book in 1995, now available in DVD.

In *A Magic Ride in Foozbah-Land*, we follow Julie and Jeff, two kids with diabetes, who join Nurse Kelly on a magic trip inside Mr. Foozbah to learn about digestion and diabetes. Originally a book, *A Magic Ride* is now an 11-minute DVD with colorful illustrations of food and guts will entertain kids and teach them about why insulin is so important, no matter how you get it. The narrative is very well done, and younger kids will probably ask watch it over and over because they'll like the rhymes. This is a great resource for younger kids with type 1 diabetes.

***Matthew Takes His Shot*** by Owen Coleman. Illustrated by Judy Bullock. 2001. ISBN 1-57197-255-2.

Matthew is a polar bear who is diagnosed with diabetes right before an important ice jumping contest. He visits the doctor and nurse -- both walruses -- and learns about diabetes and the need to do blood tests and take insulin shots. He doesn't like to do his own shots, but learns to do so right before he has to compete in the contest. The confidence he gains by doing his own shot helps him win the day.

The book is colorfully illustrated, but many of the words might be too difficult for younger kids to read by themselves. Older kids, age nine or so and older, should have no problem.

Author Owen Coleman has Type 1 diabetes. A portion of the book's proceeds will be donated to the Juvenile Diabetes Research Foundation.

***Meeting the Challenge: Children Living with Diabetes*** by Thomas Bergman. Published by Gareth Stevens, 1992. ISBN 0-8368-0738-3. Gareth Stevens, 1555 North River Center Drive, Suite 201, Milwaukee, WI 53212. 1-800-542-2595 (USA), (414) 225-0333, [info@gspub.com](mailto:info@gspub.com) (email)

From Gareth Stevens' *Don't Turn Away* series of books about remarkable children, *Meeting the Challenge: Children Living with Diabetes* follows ten-year-old Jonny, a boy from Stockholm, Sweden, from home to diabetes camp and back. Exceptional black-and-white photographs capture the daily drama of living with diabetes, including blood test, insulin injections and insulin reactions. The excitement of diabetes camp will be contagious. This book is highly

***Mommy, What is Type 1 Diabetes?***, written and illustrated by Irene Mallano and Madison Rose Mallano. Published by Author House, 2010. ISBN 978-1-4490-7370-1.

Madison Rose was diagnosed with type 1 when she was four years old. *Mommy, What is Type 1 Diabetes?*, written by Madison Rose and her mom Irene, is her story. Colorfully illustrated and written from a child's perspective, *Mommy, What is Type 1 Diabetes?* offers younger kids a chance to share their diagnosis experience with someone else. Mom shares her family's tips at the end, offering newly diagnosed parents words of advice and comfort as they begin their diabetes journey. Recommended for families with young kids.

***My Own Type 1 Diabetes Book*** by Sandra J. Hollenberg. 1999. ISBN 0-986672-0-1.

*My Own Type 1 Diabetes Book* is a wonderful book for kids with Type 1 diabetes and their families. Written by a grandmother for her grandson with diabetes, the book is colorfully illustrated by the author and very easy to read. Kids in second or third grade should be able to read the book themselves. Readers will learn the basics of diabetes care, including why counting carbs and taking insulin is necessary for kids with Type 1 diabetes. *My Own Type 1 Diabetes Book* would also make an excellent addition to libraries at schools and day care centers. Best of all, the book is free! Just [download the PDF file](#) and print it on your color printer.

***My Pancreas Needs Glasses*** by Rhonda Goodall. Published by Susan the Scribe, Inc., 2017. ISBN 0997313579.

*My Pancreas Needs Glasses* is a charming book for younger children with type 1 diabetes. In it, a boy and his younger brother learn that there are many people in the world who are "different." One person has a heart condition; one has a thyroid condition; and one has a prosthetic leg. They have a conversation with a neighbor who has diabetes, among other conditions. It is this man who says he no longer tells people he has diabetes, but that his "pancreas needs glasses." Highly recommended for children 6-10 and should be added to those books presented to classes.

***Professor Bumblebee's Guide to Type 1 Diabetes*** by Erica and Andries Maritz; editorial direction by Angie Middlehurst and Melinda Morrison. Published by Diabetes Australia-NSW, 2004. Book ISBN 0-9752234-0-2 (28 pages). DVD ISBN 0-9752234-3-7 (DVD in PAL format plus read-along book).

This is an attractive, very well done cartoon presentation of the basics of normal glucose metabolism and type 1 diabetes. Both the book and animated DVD demonstrate blood sugar testing (results shown are in mmol/L) and insulin injection via pen. Syringes are also illustrated; no reference is made to pumps, which are rare in Australia at this time. The book includes, without elaboration, a single sentence about eating "healthy food"; exercise is listed as an important part of management. There is good information about symptoms and treatment of lows. Use of medical identification is stressed. Possible causes of highs are discussed, and ketones are very briefly mentioned. A team approach to management (physician, educator, dietitian) is presented. This is an excellent resource for newly diagnosed 6-12 year olds, classmates and teachers, or anyone wanting an easily understood explanation of type 1 diabetes. View a small sample of the product at [www.diabeteskidsandteens.com.au](http://www.diabeteskidsandteens.com.au).

***Return to Skoki Lake*** by Nikki Tate. Published by Sono Nis Press, Victoria, British Columbia, Canada. ISBN 1-55039-102-X.

Canadian author Nikki Tate draws on her experience as a mother of a young girl with diabetes in her novel "Return to Skoki Lake." In the novel, we learn of Jessa's diagnosis, her reaction to this news and how she copes with resuming her normal activities afterwards. This is an excellent novel for pre-teens and older, especially those who are newly diagnosed and for those who love horses.

***Rufus Come Home*** by Kim Gosselin. Illustrated by Terry Ravenelli. Published by JayJo Books, 1998. ISBN 1891383027. JayJo Books, 1-800-99-YOUTH.

*Rufus Comes Home* is a story about a young boy named Brian who is diagnosed with diabetes. His mother buys a teddy bear and sews patches on the bear in the same spots where Brian gets his insulin shots and blood tests. Brian names the bear Rufus. Through Rufus, Brian learns to come to terms with his diabetes.

***Rufus, the Bear with Diabetes*** was created by Carol Cramer, whose son Brian was diagnosed with Type 1 diabetes in November 1994 at the age of three. Proceeds from the sale of both the bear and the book benefit the Juvenile Diabetes Research Foundation.

***Sarah and Puffle: A Story for Children About Diabetes*** by Linnea Mulder, R.N. Illustrated by Joanne H. Friar. Published by Magination Press, 1992. ISBN 094535441X. Magination Press, 19 Union Square West, New York, NY 10003. 1-800-825-3089.

The author's daughter, Sarah, was diagnosed with diabetes six weeks before her fourth birthday. *Sarah and Puffle* recounts how frustrated children often get managing their diabetes. Facing a visit to her cousins who live on a farm, Sarah can't help but feel left out because she has diabetes. Tired of the demands of diabetes, she runs off to the sheep pen and falls asleep and dreams of a talking sheep named Puffle that helps her come to terms with having diabetes. This is an excellent book for second graders and up, who will find the writing challenging and the story all too close too home.

***Sillwee Wobbert, Diabetes and José at School and Play*** by G. Robert. Illustrated by Glenn Lucas. Published by Dream Publishing Co., 2002. ISBN 0970486154.

*Sillwee Wobbert, Diabetes and José at School and Play* tells the story of José, who is a Latino boy with diabetes, going low at a T-ball game. The 28-page illustrated book (it also has a companion coloring book) is light on diabetes information and long on rhyming, which can help young kids who are newly diagnosed to understand better what having diabetes means. In this story, diabetes doesn't stop José from playing T-ball, which is a positive message, especially for kids new to diabetes. *Sillwee Wobbert* would be appropriate for school aged kids and younger.

***Sugar Isn't Everything*** by Willo Davis Roberts. Published by Aladdin Books, 1987. ISBN 0-689-71225-1. 190 pages. Paperback.

Fear of insulin injections and anger at diagnosis are two of the emotions of an adolescent girl in Willo Davis Roberts' *Sugar Isn't Everything*. Roberts' novel details the summer Amy Long began to exhibit the most prominent symptoms of diabetes: extreme thirst and hunger, excessive urination, and fatigue during exercise. When she finally ends up in the hospital, Amy is startled by her diagnosis, fears doing her own injections, is concerned about the perceived stigma of wearing her medical identification bracelet, and is distressed at not being able to eat her favorite chocolate foods. With the help of her older brother, Amy learns to cope better and even helps out a teenage boy with diabetes.

Though with proper meal planning and carbohydrate counting people with diabetes can eat chocolate foods, *Sugar Isn't Everything* is still an excellent novel that

deals with the emotional aspects of diabetes. ***Highly recommended for kids ages 9 to 15.***

***Sugar Was My Best Food: Diabetes and Me*** by Carol Antionette Peacock, Adair Gregory, and Kyle Carney Gregory; illustrated by Mary Jones. Published by Albert Whitman & Company, 1998. ISBN 0-8075-7646-8. 55 pages. Paperback.

*Sugar Was My Best Food: Diabetes and Me* is the true story of Adair Gregory, a young man who was diagnosed with diabetes when he was nine years old. He tells of his thinking he was going to die when he heard that he had **die**-a-bee-tees, which is common among kids. He also lets us know that, before he was diagnosed, he "*lived* for candy." He shares his frustration with having to eat snacks even when he isn't hungry. He lets us know that at night, while lying in bed, he worries about his blood sugar. And he writes about how much fun he had at diabetes camp.

Adair's book is an excellent child's-eye-view of living with diabetes, something with which other kids will immediately identify and something which parents often overlook. Though diabetes affects everyone in a family, it affects the person with diabetes most of all. ***Highly recommended for kids ages eight to 14, and parents of kids with diabetes.***

***Taking Diabetes to School*** by Kim Gosselin. Illustrated by Moss Freedman. Published by JayJo Books, 1994. ISBN 1-891383-00-0. JayJo Books, 1-800-99-YOUTH.

This 20 page, colorfully illustrated book belongs in your child's elementary school library. Jayson (the author's son) talks about his diabetes and what he needs to do to stay healthy, including taking insulin injections, performing blood tests, and eating snacks. It's an excellent child-focused book and will help your child explain diabetes to his or her classmates. Now in its second edition, *Taking Diabetes to School* now includes Ten Tips for Teachers and Kids Quiz. Highly recommended. Price is US\$11.95 (shipping and handling is included). Quantity discounts are available.

JayJo books also publishes two book about children with asthma entitled ***Taking Asthma to School*** (ISBN 0-9639449-1-6) and ***Taking Asthma to Camp*** (ISBN 0-9639449-2-4).

***Taming the Diabetes Dragon*** by Anne Dennis. Illustrated by Thom Buttner. Published by JayJo Books, 1998. ISBN 1-891383-03-5. JayJo Books, 1-800-99YOUTH.

In February 1995, two-year-old Preston was diagnosed with Type 1 diabetes. Anne Dennis, Preston's mom, wrote a story about a dragon named Diabetes to help

everyone in her family come to terms with Preston's diabetes. She now shares her story with everyone in this wonderful book.

In *Taming the Diabetes Dragon*, Anne Dennis helps young children learn that diabetes will not defeat them. When the village of Pancreas is invaded by the dragon Diabetes, a brave boy named Preston helps the villagers learn how to tame the dragon using insulin, exercise and healthy eating. *Taming the Diabetes Dragon* is an excellent book for younger, newly diagnosed kids.

***Teddy Ryder Rides Again*** by the American Diabetes Association.

This coloring book is a story about Teddy Ryder, a young bear who develops diabetes. A unique way for your child with diabetes to have fun and learn about diabetes. For young kids.

***Trick-or-Treat for Diabetes*** by Kim Gosselin. Illustrated by Tom Dineen. Published by JayJo Books, 1999. ISBN 1-891383-07-8. JayJo Books, 1-800-99YOUTH.

Kim Gosselin's "Trick-Or-Treat for Diabetes" is an excellent book about what kids' feelings are about Halloween. In the story, a newly diagnosed young girl is disappointed when she thinks she cannot go trick-or-treating because she can't eat the tons of candy. Her mother remembers how she felt about Halloween when she was a child; it's not just the candy, but the whole experience that made it so enjoyable. So, the mom allows her daughter to get a costume and collect candy. She saves some of the candy for "lows," plans to take some to the nurse for "lows," and sells the rest to her mother. There is one minor drawback to the book--when the girl is out trick-or-treating, she tests, is low and eats a chocolate bar. Children should be advised that other candies, such as Smarties, Life Savers, and such are a much better choice when low. The fat in a chocolate bar can slow down the absorption of the sugar.

***The Diabetes Game: A Teenager's Guide to Living Well with Diabetes*** by Nora Coon. Published by Rewarding Health, 2006. ISBN 0-9778355-0-2. Softcover, 144 pages.

Most books for kids and teens with diabetes are written by adults – some parents, some health care professionals. *The Diabetes Game* is one of the very few books written by a teen with diabetes. Teens will appreciate hearing about living with diabetes from one of their own, and parents can gain considerable insight into the issues and concerns that our teens face, even if they aren't always willing to articulate them.

Nora starts at the beginning – diagnosis. She covers food, insulin, diabetes burnout, relationships, even sex and alcohol. These are all things that our teens worry

about and need to know about, since success with diabetes is as much about knowledge as it is about insulin.

***Type 1 Teens: A Guide to Managing Your Life With Diabetes*** by Korey Hood, PhD. Illustrated by Bruan Ische. Magination Press, 2010. ISBN 1-4338-0788-2. 146 pages, paperback.

Being a teenager is challenging. Add type 1 diabetes and it can get – well – very challenging. In *Type 1 Teens: A Guide to Managing Your Life With Diabetes*, Dr. Korey Hood offers teens a straight talking, no-nonsense guide that can help teens with type 1 not just survive, but thrive. Dr. Hood covers all the usual topics – school, dating, alcohol – but also emphasizes the importance of avoiding burnout, a topic not often explored with teens. Dr. Hood is a pediatric psychologist who works with kids and teens living with diabetes, but he also has type 1 and can empathize with the difficulty of living up to expectations that teens face. This isn't a book of "do this" or "do that." It's more of a strategy guide to help teens find their own way to success. There are so few resources to help teens, and thus this book helps to fill a void. ***Highly Recommended.***

***Why Am I So Tired?*** by Pat Thomas. Published by Barrons, 2008. ISBN 0-7641-3899-5. Paperback, 29 pages.

Explaining diabetes to a newly diagnosed child is a challenge, and there are few good books that can help. *Why Am I So Tired?* is a new book aimed at younger kids that can help. Nicely illustrated and written in a gentle, positive tone, this book is perfect for gradeschool kids who can read on their own. This book is part of a larger series of books called *A First Look At* published by Barrons. ***Recommended.***

***Why Me? Why Did I Have To Get Diabetes?*** by Robert Messinger and Laura Messinger. Published by Little Mai Press, 2004. ISBN 1-893237-02-8. Hardcover, 64 pages,

Laura, who is nine years old, was diagnosed with type 1 diabetes when she was three. This book, written in her words, is about how she feels having diabetes and what happens when a boy in her grade named Tyler is also diagnosed. Laura helps Tyler overcome his fear and anxiety about having diabetes and the two become good friends. *Why Me?* is an excellent book for young children who have diabetes. ***Highly Recommended.***

***Wizdom for Kids*** by the American Diabetes Association. Free by calling 1-800-DIABETES (in the United States).

To help educate both newly diagnosed children and their parents, the American Diabetes Association has devised an excellent source of information, the "Wizdom Kit." There are two spiral bound booklets, one for parents and one for kids. The booklets are full of colorful illustrations and diagrams and cover everything from how to draw up a shot of mixed insulin to diabetes issues at school.

To help kids learn about diabetes, the kit includes three juggling balls (instructions for juggling included), which represent the three things someone with diabetes must juggle: diet, exercise, and insulin. Contact the ADA at 1-800-DIABETES or via e-mail at [wizdom@diabetes.org](mailto:wizdom@diabetes.org) to order a kit. ***Highly recommended.***

#### Kids Booklet

***Year One With Type One.*** Written by Mike Suarez, illustrated by Olsi Tola. Independently published in December 2018. ISBN 1730703496. Softcover, 37 pages,

Being diagnosed with type 1 diabetes can be very difficult for young children. *Year One With Type One* is a new book written by Mike Suarez and colorfully illustrated by Olsi Tola that can help explain what living with diabetes will mean. The book tells the story of a young boy named Andrew being ill, going to the hospital and getting diagnosed, and returning home to his new life with type 1 diabetes. The sentences rhyme, which kids will find fun, and the content includes the latest in diabetes care technology, including CGMs with remote monitoring. Andrew's experience will help other young kids understand what it means to have type 1 and that diabetes won't stop them from being a kid. ***Recommended for young children recently diagnosed.***

#### Older Books That Might Be Out of Print

***When a Family Gets Diabetes*** by Marge Heegard, M.A., A.T.R. and Chris Ternand, M.D. Published by DCI Publishing, 1990. ISBN 0-937721-75-1.

This book is different from all the rest: it's essentially a coloring book, albeit quite an interesting one. Using art as an emotional outlet, children with diabetes are encouraged to express their feelings in colored pencil and crayon. For younger children, this book might be the difference between making their parents understand how they feel and living in quite frustration. ***Highly recommended*** for pre-schoolers on up.

***Zack Attacks*** by Diana Loski. Illustrated by Linda M. Sniffen. Writer's Press Service, 1995. ISBN 1885101104.



Zack is a teenage boy who is struggling to come to terms with the accidental death of his father, who was killed by a drunk driver. His is also struggling to come to terms with his diabetes and to become accepted by the kids at a new school. When confronted by a small group of boys who are on the wrong track – they're into drinking and stealing – Zack has the strength to say no. *Zack Attacks* is an excellent book for older kids and teenagers, but deals with subjects, such as teenage drinking, that some parents might feel is inappropriate for younger kids.

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