



DOWN SYNDROME ASSOCIATION
PRETORIA/TSHWANE

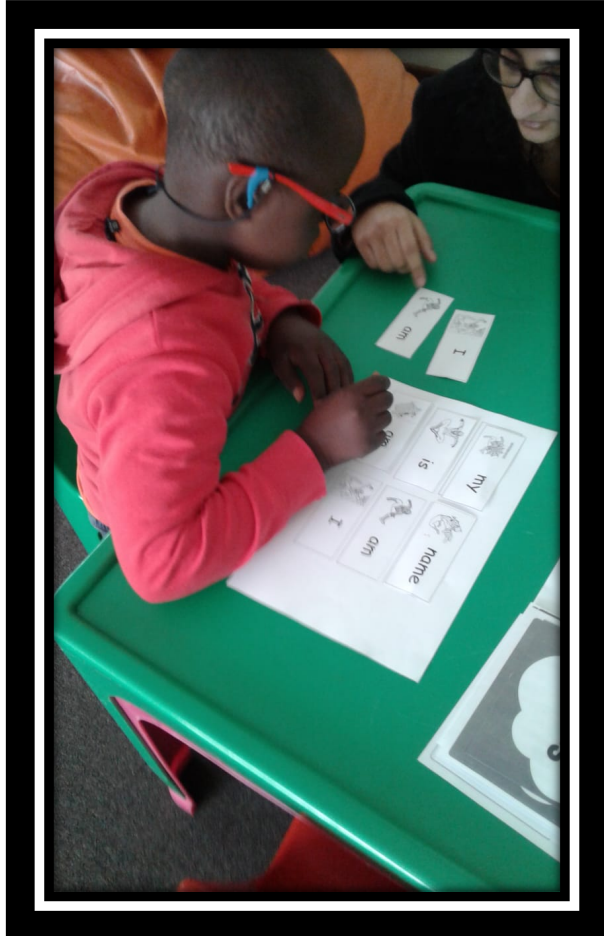
Teaching Children with Down syndrome To Read



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The MORE
that you read,
the MORE things
you will know.
The MORE that you
learn,
the MORE places you'll go.



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MYTHS VS FACTS

MYTH

Persons with Down syndrome stop learning or plateau.

FACTS

Persons with Down syndrome start learning from birth and never stop. The only limits are other peoples expectations!



LEARNING PROFILE OF CHILDREN WITH DOWN SYNDROME

AREAS OF STRENGTH

- Strong visual awareness and visual learning skills.
- Being Visual learners means reading can be a strength
- Is an area where children with Down syndrome can excel
- A skill that can continue to develop to a useful and practical level



BENEFITS OF READING

- Develop awareness of grammar and sentence structure
- Improve articulation – language expansion
- Increase vocabulary
- Develop and reinforce general knowledge as well as comprehension
- Helps access the curriculum at school
- Increasing working memory
- Improves self-esteem



LEARNING TO READ INTRODUCTION

When typically developing children start learning to read, they generally start;

- by logographic approach (whole words or sight words)
- then progressing to phonological approach – listening to the sound of letters to decode or break down the word.

As children with Down syndrome are good visual learners;

- learning through sight words
- are able to build up quite a large sight word vocabulary.
- They can struggle with the phonological stage and often rely on logographic memory strategies to maintain their progress in reading.
- Challenges with auditory discrimination and processing can make learning to read through the phonological route a challenge
- if they do not acquire these strategies, reading progress will slow down or even stop.

LEARNING TO READ INTRODUCTION continued...

Many children with Down syndrome however, can and do learn these strategies at a later stage and it may take a little longer to learn.

- This ability may vary greatly
- Some children will use limited basic skills such as initial letter to read and spell a new word
- Others will use much wider phonic strategies.
- Research has shown that children start to show more phonological awareness once they reach the reading skill level of a 7/8 year old



TEACHING SIGHT VOCABULARY AND WORDS THAT ARE FAMILIAR

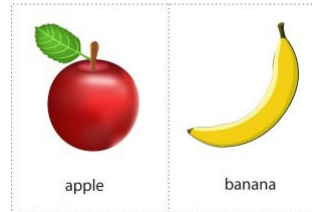
- Start with words the child is familiar with;
- always start with pictures to support understanding of the word the child is learning to reading.

E.G.

CLOTHES



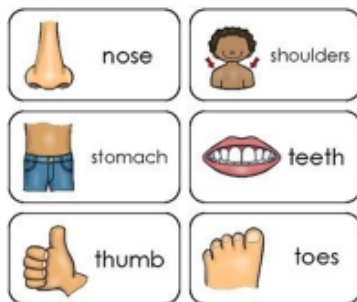
FRUIT



FARM ANIMALS



BODY PARTS



TOYS



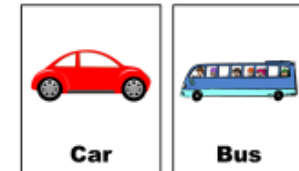
PARENTS/FAMILY



PETS

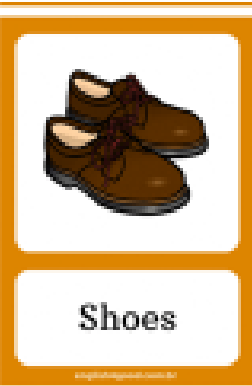


TRANSPORT



MATCHING

Make 2 sets of cards using the words you have chosen



- Depending on the child's age, you can make 2 - 6 items per page;
- child matches flash cards together with the picture
- You can then move to word only matches
- Use match, select, name process i.e. you ask the child to find the word, child matches the words, then you ask the child to name the word. Can be followed by asking the child to hand you back each word

Shoes

Socks

Shoes

Socks

REPETITION IS KEY

- Start with the amount of words you have chosen and **only** focus on those for the week;
- **If necessary** you can reinforce with the picture cards;
- Add new words gradually, continuing with the match, select and name process;



SELECT

MATCH

BUILDING PHRASES

Building phrases and sentences can be done focusing on the child's interests;

- Favourite TV show
- Favourite activity
- Favourite toy
- Favourite animal
- Favourite food

Shimmer



Shine

Sigwoorde in die boek	
tot	se
is	en
in	ons
sê	



Ons is Shimmer en Shine

Ons is beste vriende.

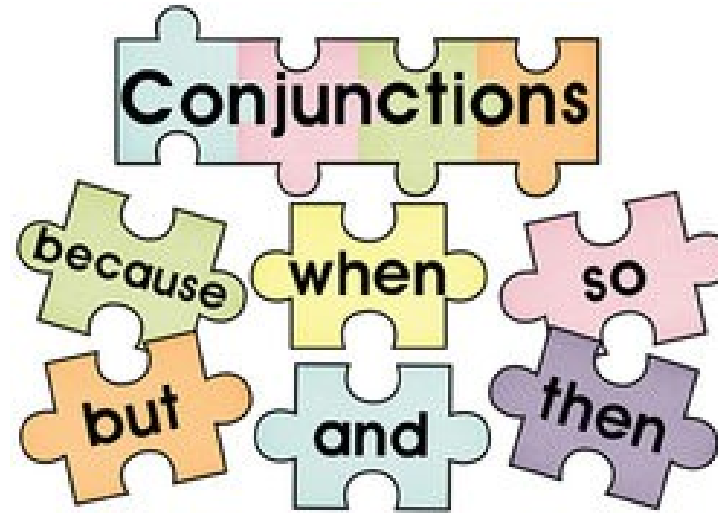


Ons hou van om te vlieg.

Ons kan van middag tot
aand vlieg.

EXPANDING VOCABULARY

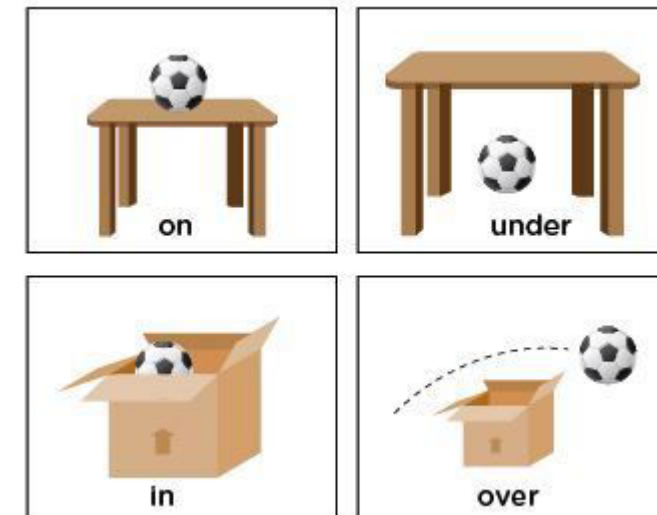
- Include **simple** conjunctions;
 - Pronouns
 - Verbs
 - prepositions;
- Into phrases and sentences as soon as possible. Use sentences that are used in everyday conversations



VERBS



PREPOSITIONS



ENGLISH PRONOUNS					
	Subject Pronouns	Object Pronouns	Possessive Adjectives	Possessive Pronouns	Reflexive Pronouns
1st person	I	me	my	mine	myself
2nd person	you	you	your	yours	yourself
3rd person (male)	he	him	his	his	himself
3rd person (female)	she	her	her	hers	herself
3rd thing	it	it	its	(not used)	itself
1st person (Plural)	we	us	our	ours	ourselves
2nd person (Plural)	you	you	your	yours	yourselves
3rd person and thing (Plural)	they	them	their	theirs	themselves

EXAMPLES OF FLASH CARDS FOR EASY READER

My

name

like

sport

is

I

am

year



at



the



rugby



Springboks



stable



horse



represent



South
Africa

EXAMPLE OF ACTION BOOK/EASY READERS

My name is

I like sport.

I am 12 years old.

I help with horses at the stables.

I like horses.



I love rugby.

My favourite teams are the Springboks

Bluebulls



and the Sharks



The Sharks



are

from Durban. They play rugby really well.



The Bluebulls



are from Pretoria.

I live in Pretoria.



The Springboks



are

our national team.

They represent South Africa.

I live in South Africa

Using familiar signs and symbols will be encouraging for the child and they will feel more confident when reading the easy readers.

- Include the child in the story
- Using the interests of the child peaks their interest and they often are more engaged in these stories.
- You can take photos on holiday/weekends, at school etc and make an action book

OTHER BOOKS TO HELP WITH THEIR LEARNING

You can create topic books to teach category words e.g

- Furniture
- Transport
- Animals

This can be expanded to include curriculum based topics.

Practicing sentences in reading helps the child to learn functional words and increasingly correct grammar.

You can include a daily conversation diary, the adult and child with Down syndrome can write a sentence every day into this diary, this then works on;

- Writing skills
- Reading and comprehension skills as well

PROGRESSION



- - Single word
- Phrases
- Easy readers for daily activities/routines
- Books with less familiar sequence of stories
- Target grammar and syntax (The format in which **words** and phrases are arranged to create sentences)

Assessing the child's comprehension skills often as reading skills can surpass their level of understanding. Assessing comprehension can be done:

Early years:

- Matching pictures to phrases
- Picture sequencing

Name: _____	
Simple Sentences Read and Draw	
Read it: The cat is on the mat.	Draw it:
Read it: I see a big jet.	Draw it:

PROGRESSION continued...

Record all the words the child learns, so you can have a record of their sight vocabulary – this will also help with checking consolidation.

You can reinforce the words the child is using with games:

- Sight word dominoes
- Jenga (write the sight words on the blocks)
- Sight word bingo

You can create your own sight word bingo and dominoes here:

<https://sightwords.com/sight-words/games/bingo/card-creator/>

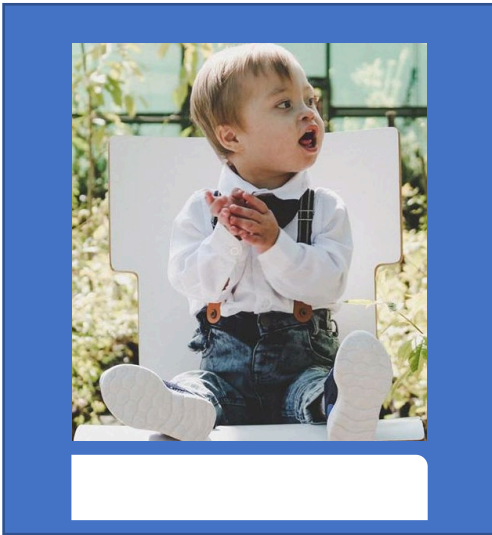
<https://sightwords.com/sight-words/games/dominoes/card-creator/>



SENTENCE CONSTRUCTION

Link reading with early writing skills and sentence construction.

- Child must put a sentence together using their sight words
- Choose a phrase from one of their books
- Once the child has done this correctly a few times, cover the phrase and ask them to build the sentence again just looking at the picture.

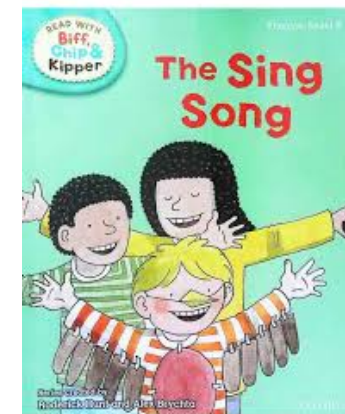
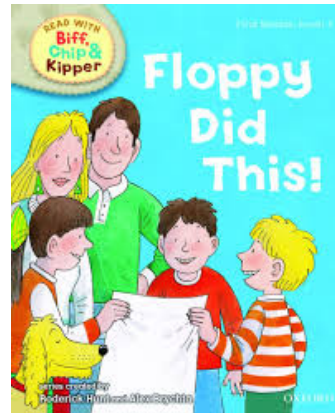


I

can

clap

Introduce commercial reading books along side the personalized books. Books that are introduced should be relatable.



SENTENCE CONSTRUCTION AND COMPREHENSION

Continue to target comprehension by asking about the story.

- Read the story
- Break it down asking questions section by section
- Providing questions with a choice of written answers can assist if there is a challenge with expressive language.



This is John. He's eight years old.
He's tall and fat. He's got blonde hair and big brown eyes.
He can ride a bike and swim.
He can't skip and he can't dance.
His favourite toy is a boat. It's red.
He's got three blue yoyos and a yellow yoyo too.

1. What's his name? John/Tom
2. How old is he? 8/5
3. Has he got blue eyes? Blue eyes or Brown eyes
4. Is he fat? Fat or thin
5. Is he short? Tall or short
6. Can he swim? _____
7. Has he got red hair? _____
8. Is his boat blue? _____
9. Has he got three yoyos? _____
10. Can he ride a bike? _____

INTRODUCING PHONICS

Once the child has learnt between 50 and 100 sight words, you can start introducing phonics.

- Learning phonics will help the child to decode new
- Words they come across,
- Help with expanding their reading skills

Introduce phonics with multiple strategies;

- Visual cards
- Actions
- Signs
- music
- Magnetic or plastic letters



INTRODUCING PHONICS continued...

Provide a range of objects that can be sorted into their sound groups;
Eg. The child can place a pig, pencil and paper
Into a basket.



Sort words they have learnt into groups with the same sounds

Phonics sounds

Group 1		Group 2		Group 3	
s	snack, sounds	ck	duck, clock	g	grow, so <u>g</u> gy
a	apple, animal	e	egg, best	o	long, holid <u>ay</u>
t	tall, treat	h	hand, happy	u	sun, und <u>er</u>
i	spill, imagine	r	rest, parrot	l	silly, l <u>igh</u> t
p	strap, pres <u>en</u> t	m	meet, mum <u>my</u>	f	fluff <u>y</u> , fri <u>en</u> d
n	nice, bun <u>ny</u>	d	dive, dadd <u>y</u>	b	ball, bab <u>y</u>

INTRODUCING NUMBERS

Maths curriculum during the early years of schooling focuses on giving children the basic set of skills that are necessary in daily living. It also provides a foundation for understanding more advanced maths e.g

- Time
- Measurements and weights
- Data handling
- Volume and shape
- Money system

The most important factor in all of this is to understand number concepts, counting, understand that numbers represent quantities and how to work with numbers.

INTRODUCING NUMBERS continued...

To be able to understand and learn measurements, weights, telling time and use money, a child with Down syndrome will need to be able to count to 100.

Research indicates that children with Down syndrome can find number concepts a bit of a challenge. However, as in all children, there is a wide variation in individual progress with some children showing an aptitude and interest in numbers and can even learn at as typical children do, while other children only master a simple level of counting by the time they leave school.

However, even if the child is not moving as swiftly as one may hope, it is important to continue to incorporate numbers into their every day lives to continue stimulating the child/teen/adult.

INTRODUCING NUMBERS

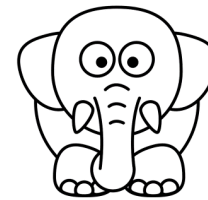
Introducing counting to children with Down syndrome can be done;

- from an early age, encouraging them to count to 3, 5 then 10 and moving on.
- Using concrete objects helps to reinforce the concept of counting.
- Counting the child's fingers and toes is a fun way to start, there are also many rhymes, songs and stories that teach counting.

- Introducing numbers to the child can be done through combining the number as well as the quantity.

- Repetition is key to helping our children to learn new concepts.

- Alternating activities to teach counting keeps the child interested and motivated to keep learning.



SCHOOL

When going to school, it is important to keep in mind that' oftentimes how numbers are taught are abstract and fast paced.

Children with Down syndrome will be more motivated when they can relate what they are learning into their every day lives, especially numbers, time and money. With all learning, it is important;

- Parents and teachers work as a team
- Parents can use the maths skills in every day situations
- Visual and concrete supports are available for support in the classroom.
- Continuous practice of rote counting, expanding the counting once the child has mastered their goal. 1-10, 1-20, 1-30, 1-40 and so on.

NUMBER CONCEPTS

Maths has a strong visual element and this can be a huge support to children with Down syndrome;

- utilising number lines,
- hundreds charts,
- manipulatives and an
- abacus are support materials that are available to support learning maths.
- There are also many games that can be played to help with understanding, counting and numbers.



Our Hundreds Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



NUMBER CONCEPTS

Primary skills list

Numbers –

reading numerals 1- 10

Counting 1-10

Counting Principals (how many)

More, less

Counting 1-20

Order amounts

One More/One Less

Bigger, smaller

Recognise and understand 0

Read, write and order numbers 0 – 20

Count Backwards to 0

Count on

Count back

Use ruler

Addition and subtraction

Begin to add and take away

Know symbols + - =

Doubling (2+2, 4+4 etc)

Place Values units, tens, hundreds

Counting to 100, reading and writing to 100

Odd and even numbers

Count forward and backwards

Identify x and division symbols

NUMBER CONCEPTS

Times tables 2's, 5's 10's

Identify and say number to 1000

Column addition and subtraction

Understand division is opposite of x

Money

Identify values/coin names

Adding money

Time

Days of week (ordered)

Hours on clock

Seasons of the year

Months of the year

Hours and half hours

Units of time, seconds, minutes, hour, day, month , year

Tell the time

Measurements

Use ruler and scales for measurements

Compare lengths

Measure, weigh, compare

Shape, place, data

Shapes

Position, direction and movement

Right angles

Symmetry

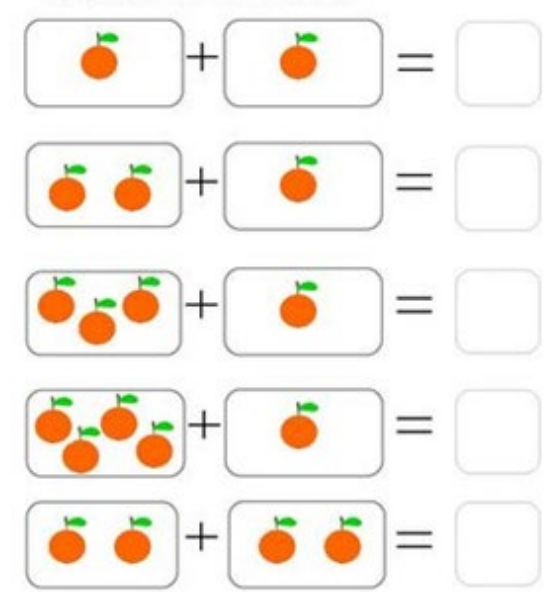
Tables and graphs

Fractions – recognise/use

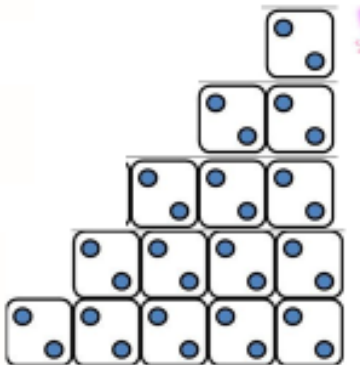
ADDING, SUBTRACTING /MULTIPLYING/DIVIDING

Early addition can start with counting objects
And move onto numbers with objects and then
numbers only.

Once the child is confident in addition you can
move onto subtraction using the same concept.
For multiplication, the child will need to identify the
pattern that shows you are counting in a number set:



$$\begin{aligned}2 \times 1 &= 2 \\2 \times 2 &= 4 \\2 \times 3 &= 6 \\2 \times 4 &= 8 \\2 \times 5 &= 10\end{aligned}$$



For division, the child needs to find the pattern that
shows we are breaking the number down into sets:

$$\begin{aligned}4 \div 2 &= \text{[2 squares in a circle]} \quad \text{[2 squares in a circle]} \\6 \div 3 &= \text{[2 squares in a circle]} \quad \text{[2 squares in a circle]} \quad \text{[2 squares in a circle]} \\8 \div 4 &= \text{[2 squares in a circle]} \quad \text{[2 squares in a circle]} \quad \text{[2 squares in a circle]} \quad \text{[2 squares in a circle]}\end{aligned}$$

MONEY MATTERS

Introducing money can be done through every day activities as well as introducing;

- Pocket money.
- School tuck shop can also help.
- Taking your child with you when you go to the shops, showing and comparing prices will also help in understanding money concepts and values.



USING A CALCULATOR

A calculator should only be introduced once the child has the concept of numbers.

They need to;

- understand number values
- calculating concepts + - in the very least however knowing $\times \div$ will be of great benefit too, before using the calculator so they understand the sums they are calculating and their overall value.

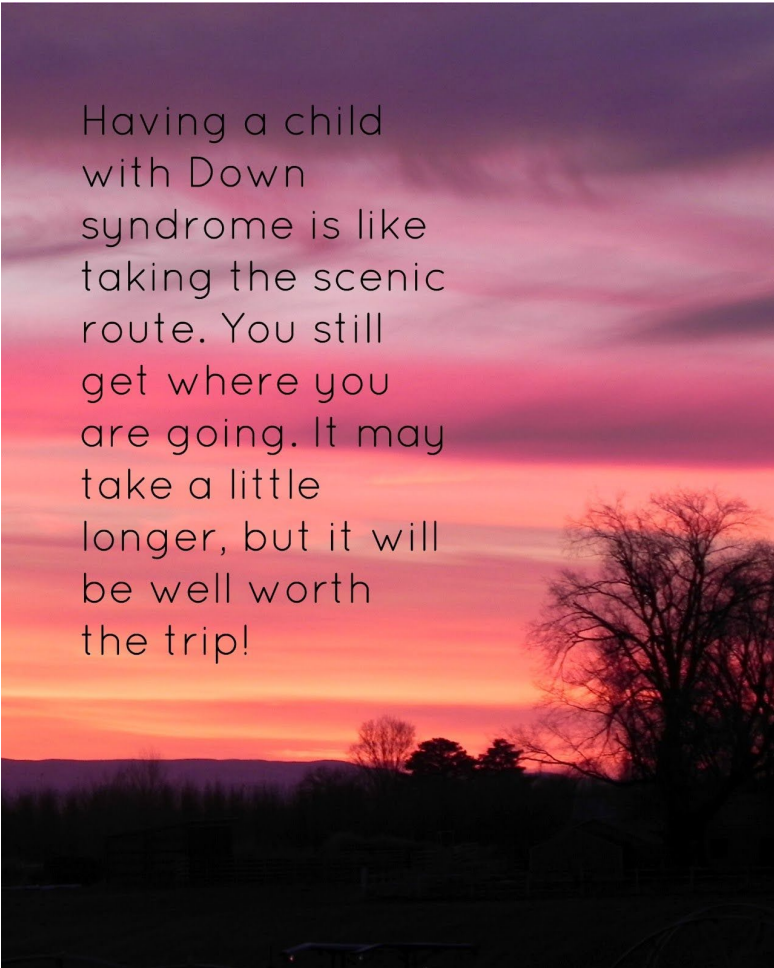


CONCLUSION

Daily practicing of reading is essential to improve reading skills and should be encouraged and continued well into adulthood.

Teaching children with Down syndrome to read will not only open doors to the world of books but also expand their speech and language skills.

Teaching children with Down syndrome maths will be a help in every day skills and enable them to manage finances, tell time, shop, do budgets and so much more.



Having a child with Down syndrome is like taking the scenic route. You still get where you are going. It may take a little longer, but it will be well worth the trip!

**Remember your child needs you to
help them reach their full potential**



BELIEVE IN THEM