

"How Brain-Friendly Learning
Can Release Your Child's
Infinite Potential"



**Brain-based research and how it
impacts upon your child.**

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Enchanted Learning Experiences - Why They Should Be The Norm For Our Children.



Brain Based Research And Your Child

"Walk upstairs, open the door gently, and look in the crib. What do you see?

Most of us see a picture of innocence and helplessness, a clean slate. But, in fact, what we see in the crib is the greatest mind that has ever existed, the most powerful learning machine in the universe."

From "The Scientist in the Crib"

(Alison Gobnik, Ph.D., Andrew N. Meltzoff, Ph.D., Patricia K..Kuhl, Ph. D.)

Such minds should be exposed to enchanted learning experiences where learning becomes the magical natural process nature intended it to be.

The more we discover about the universe around us the more we realize how little we really know.

What is true of outer space is also true of inner space - our minds.

At birth we stand like Lucy before the magic Wardrobe prepared to enter a world where enchanted learning experiences become the air we breathe.



The latter part of the twentieth century has seen more discoveries about the human brain than in all previous history of mankind.

It is as though we have been paddling in the shallows of a vast ocean hitherto unaware of its existence.

Enchanted learning experiences beckon us out into the deep oceans of discovery and no ocean is more wondrous or mysterious than our brains.

The brain contains a vast number of cells or neurons.

It is connections made between these neurons that constitute learning.

Robert Ornstein has estimated that there are more possible links between the neurons in our brains than there are atoms in the known universe.

"We are only now on the threshold of knowing the range of the educability of man . . . We have never addressed ourselves to this problem before."

Dr Jerome Bruner, Harvard University

"We will by conscious command evolve cerebral centers which will permit us to use powers that we are now not even capable of imagining."

Dr Fredric Tilney - leading French brain specialist.

The implications for our children are staggering and have focused the attention of many educationalists around the world on the early years of child development. In this context, enchanted learning experiences are not an optional extra. We now believe that we only use around 4% of our brain's potential. **Jack Schwartz**, psychophysical trainer, believes:

"We are hoarding potentials so great that they are just about unimaginable."

Given these revelations enchanted learning experiences should be the norm for our children.



Yet, despite this knowledge, educational systems world-wide still insist on devising ways and means of classifying children in terms of their intellectual capacity, often using very narrow criteria and limited learning styles as far removed from enchanted learning experiences as you can imagine.

While these systems work well for certain types of learners they disadvantage the majority in a manner akin to self-fulfilling prophecies.

This is particularly true when we consider the structure of the brain.



Creative Imagination - The Brain's Most Powerful Ability



Creative Imagination And Your Child

"To imagine is everything, to know is nothing at all."

Anatole France 1881,

The brain is in fact triune in nature.

The Reptilian brain controls our basic instincts. Whenever we are stressed our higher thinking skills shut down and the Reptilian brain takes over. Its main concern is our survival.
"How do I avoid this spelling test?"

In this setting enchanted learning experiences appear as unattainable as water in a dry and dusty land. Learning under these circumstances is impossible. Under such pressure children will never access their creative imagination.

The Limbic system or Mammalian brain controls, among other things, our emotions.

All learning should involve the emotions to a greater or lesser degree. In fact, the most important state for optimum learning to take place is the emotional state.



In some schools work is now being undertaken on the subject of emotional literacy as a more accurate indicator of a child's future potential to succeed and live a fulfilled life than I.Q. Something that is in fact 'learnable' and not dependent on where you swam in the gene pool.

When this concept is grasped by educators universally then the creative imagination of children will be released.

The Neo-cortex controls the intellectual processes and is divided into two hemispheres often referred to as the right and left brain.

Each hemisphere has certain abilities associated with it. It is the right brain that houses our creative imagination.

Western society has tended to value the functions of the left brain and this, historically, has reflected the way children have been taught.

The right brain is potentially far more powerful and, in fact, complements the left brain.

If the two halves of the brain could be made to work together regularly the greater potential exists for learning and creativity. Children exposed to a system that overemphasizes analytical thinking is harmful to the brain's development. One psychologist comments:

"Such people's brains are being systematically damaged. In many ways they are being de-educated."

Creative imagination is a very powerful ability.

Like George **Cuisenaire**, at school, Albert **Einstein** displayed talent as a musician and artist.

How many enchanted learning experiences was Einstein exposed to?

He actually failed his maths!

The Theory Of Relativity was conceived as the result of a daydream he had on a summer's day alone on the top of a hill. In essence Einstein created his own enchanted learning experience through the power of creative imagination.

Using the power of creative imagination he visualized himself riding on a sunbeam to the end of the universe,



returning toward the sun. He reasoned that if his dream were to be proved correct then the universe must be curved. What Freud would have made of it is anybody's guess!

For my part, as a consequence of the failure and subsequent sense of guilt and shame experienced through my failure to grasp math in school, I became motivated to develop a math program that would ensure any and every child could succeed. It took years of determined and driven research.

I was going to make absolutely sure no child I taught would experience that shattering sense of failure and inadequacy.

Children would engage in enchanted learning experiences in the subject that is most likely to cause disillusion and despair. Throughout this process I drew on the most powerful resource available - my creative imagination.

The resultant programme ***Ensure Your Child Succeeds At Math*** is highly tactile and visually (right brain activities) based but also draws upon logical evaluation of what has been visualized (a left brain activity). In essence it engages both hemispheres of the brain.

Whole-brain-learning approaches are now being developed to ensure both right and left hemispheres of the brain are engaged during the learning process. For example, **Brain-Gym** is a universally recognized and practiced method of enhancing whole-brain-learning.

Until education systems consciously provide for both left and right brain orientated students many of our children will remain seriously disadvantaged, de-motivated and ultimately disaffected. They will remain strangers to the liberating power of creative imagination. For many children we will have created an intellectual wasteland where they are consistently denied the opportunity to drink from the refreshing streams of creative imagination.

This has serious implications for society as a whole.



Pre-School Brain Growth And Development - Is It The Answer To School Failure, Aggression And Violence?



Pre-School Brain Growth And Development And Your Child.

Frustration is the wet nurse of violence.

David Abrahansen

Ronald Kotulak comments on the observations of **Craig Ramey of the University of Alabama** in his book '**Inside the Brain**':

"Seventy-five percent of all imprisoned males in America have poor school records and low IQs, Ramey pointed out. Tracing their backgrounds turns up a familiar pattern: They begin as children from disadvantaged families starting school academically behind. They don't know how to read or do basic math because they are in poor systems they get little help. Growing frustration often turns into truancy, school failure, aggression and violence. . ."

This statement is clarion call for urgent investment in preschool brain growth and development.

Sadly the situation described by Ramey is not peculiar to America alone.



Pre-School Brain Growth and Development and The Gender Issue.

For some reason the **corpus callosum**, a complex network of over 300 million nerve fibres connecting left and right hemispheres of the brain, seems to be more active in girls than boys.

Much has been made of boy's under-achievement compared to girls up to the age of 10 or 11. As psychological researcher **H.T. Epstein** has pointed out, the brain development of girls is up to twice that of boys by the age of 11.

Can this be offset by a greater understanding of how pre-school brain growth and development affects our children? Furthermore, is this reflected in the way curricula content and activities are designed for our children? What both boys and girls need regardless, are learning experiences that will fire their imaginations and stimulate the pre-school development and growth of their brain.

Ensure Your Child Succeeds At Math for example, is a program designed to introduce pre-school children to math in a way that is engaging and fun - informed by the latest developments in brain research.

Pre-school brain development - the first months.

In the first few months of your child's life an amazing amount of activity has taken place in his/her brain. From a few cells at the tip of an embryo the explosion of growth has seen an increase that will reach about 200 billion. Their function is to connect to various parts of the body developing around them. Unless they do so they will die.

Pre-school brain growth and development - wiring up the brain.

At 20 weeks of fetal development half of them have not survived the competition. This process has been described as wiring-up the brain to enable it to control vision, language, movement and hearing to name but a few areas.

During this period of pre-school brain development the brain experiences four major periods of structural change:



1. **In fetal development.**
2. **After birth.**
3. **Between 4 and 12.**
4. **In the remaining years of its existence.**

By far the most critical times are the first two periods. One of the most important revelations about the brain is described by **Dr. Robert Post, chief of the National Institute of Mental Health's (U.S.A.) biological psychiatry branch.**

"The new thing is that the brain is very dynamic. At any point in this process you have all these potentials for either good or bad stimulation to get in there and set the structure of the brain."

Pre-school brain growth and development - the role of parents.

The implications for us as parents are profound. The experiences we expose our children to will shape their future potential for learning and, ultimately, their destiny as human beings. It is absolutely essential to their welfare and development that we cultivate a more conscious understanding of the factors that impact directly upon the preschool growth and development of the brain.

As the brain is being wired-up learning pathways are being established. Imagine these pathways as being super-highways to the various control-centers in the brain like vision and movement. The pathways are actually the senses. **The experiences your child receives will determine how much stimulation reaches these centers and consequently their level of development.** Recent research shows that proper stimulation affect such brain functions as:

Language: Children whose mothers talk to them frequently have better language skills than do children whose mothers seldom talk to them. After about age 12 the ability to learn new languages declines rapidly.

Vision: Lack of visual stimulation at birth will cause those brain cells designed to interpret vision to dry up or be diverted to other tasks, making perfectly healthy eyes unable to see.



Did you know that bold black and white images are best for stimulating the visual pathways in a baby's developing brain?

Knowledge is empowerment. As parents, whether we decide to send our children to state school or take the homeschooling or unschooling option, we should all seek to become empowered to assist the preschool development and growth of the brain.



Preschool Teacher - Could That Be You?



Your Unique Role As Your Child's First And Most Important Preschool Teacher

"A teacher can only lead you to the threshold of your own mind."

Kahlil Gibran

The intimidating truth is that as a parent you not only lead your child to the threshold of his mind, you also help create it.

Whether you like it or not, you are your child's first and most influential preschool teacher.

Now listen to this . . .

"The new developmental research shows that this historical consensus about children was just plain wrong. Children are not blank tablets or unbridled appetites or even intuitive seers. Babies and young children think, observe and reason. They consider evidence, draw conclusions, do experiments, solve problems, and search for the truth."

from "The Scientist in the Crib"



Learning how to learn effectively transcends subject content.

It is the most important skill a child can acquire and the term 'learn to learn' is already commonplace in progressive educational circles.

The reason many children fail is through no fault of their own.

Dr Howard Gardner's theory of multiple intelligences' has done much to dispel the myth that the measure of a person's intelligence is left-brain orientated. We all possess a variety of intelligences', bodily-kinesthetic, naturalist as well as mathematical-logical to name but a few.

Children need to recognize this fact in order to feel good about themselves.

Making your child feel good about himself is absolutely crucial to your role as preschool teacher.

Without self esteem there is no motivation and lack of motivation is a kind of death in itself. A preschool teacher must play many parts, but probably the most important role of all is to be a guide and mentor for the child in his /her care.

ACCELERATED LEARNING, LEARN TO LEARN, WHOLE BRAIN LEARNING, are all terms that refer to developments in the field of brain-based educational research (another term!).

The early years, indeed the pre-school years of a child's life are the most crucial years. As a parent you simply cannot avoid being a preschool teacher.

This, according to **Betty Hart of the University of Kansas** and **Todd Risley of the University of Alaska**, is the period when intellectual differences occur. In a research study of forty-three Kansas City families one key factor in promoting intellectual development in young children stood out. **TALK.** Not parent's social status, or education, or wealth. What affected children's I.Q. scores most was how much they were talked to and interacted with. It's the most important aspect of your role as a pre-school teacher.



In this particular study it was revealed that parents who talked to their children most tended to praise their child's accomplishments, respond to their questions, provide guidance rather than commands, and used many different words in a variety of combinations.

Talk is also one of the best ways of assessing an older child's understanding. Simply ask a child to explain something in his/her own words and they will reveal the depth of understanding they have at that particular point in time. The issue for working parents is finding a day care center, individual or pre-school teacher who can give their child the kind of stimulation only talk can provide. Never has it been more important to find the right pre-school teacher.

Developmental programs should emphasize talk. That is why praise, questions, guidance and the provision of new vocabulary are integral to **Ensure Your Child Succeeds At Math**.

Between the ages 4 and 12 a third critical restructuring of the brain takes place. Amazingly, as a result of work undertaken by neurologist **Harry Chugani of Wayne State University**, it is now possible to see this happening. The technology used is called PET (positron emission tomography) scans that measure the brain's consumption of sugar which, in turn, indicates the energy cells use to carry out their work.

During this period the brain is creating a structure that your child will inhabit for the rest of his/her life. Depending on the experiences he/she receives it can be a palace, vast and rich, or a shack, cramped and bare. This is a heavy responsibility for you or anyone else who will share your role as a pre-school teacher.

By age 12 it can be too late.

TALKING TO OUR BRAINS

We are now developing tools that can help us consciously communicate with our brains. The work undertaken by **Tony Buzan** has led to the development of mind or learning maps. Powerful note making and learning tools because they reveal how our brain thinks.



These tools are being adapted by people like **Eva Hoffman** (Learn to Learn) for young children.

Ghugani is pretty forthright in his views. He observes:

"Who's the idiot who decided children should learn foreign languages in high school? We're not paying attention to the biological principles of education. The time to learn languages is when the brain is receptive to these kinds of things, and that's much earlier, in preschool or elementary school . .There should be more emphasis on earlier education for key areas - language, music, math, problem-solving."

The whole area of brain-research and education is opening up new horizons for our children. Our innovative math program **Ensure Your Child Succeeds At Math** is not simply the best way of introducing math to young children but a developmental program that enables your child to 'learn how to learn'.



Parenting Tips For The New Millennium



Your Amazing Child

Parenting Tips: The New Frontier

We stand on the shore of the 21st century.
What does the future hold for our children?

Life now seems to be dominated by computers
- fruit of the technological revolution.

Most people are of the opinion that space is the next
frontier to be explored. Many eminent researchers would
disagree.

The mind, they say, is the new frontier.

Parenting Tips - What Is Genius?

Scientists declare that we cannot begin to imagine what
our mind's are capable of. It is now estimated that we only
use about 4% of our brain's potential.

**If we could increase that to 8% we would all be
geniuses - as we define genius at the moment.**

Our brains are composed of cells known as nuerons.

These nuerons connect with each other to form 'learning
pathways'.

American scientist Robert Ornstein declares there are more
possible connections between these nuerons than there are
known atoms in the universe!



Parenting Tips - The Most Crucial Ability

Probably the most important quality children will need in the 21st century is the ability to 'learn how to learn'.

They will need to be able to process the vast amount of information becoming increasingly available.

They will need to be able to adapt to changing circumstances.

Chris Gamble of 'Mind Kind' states, in his book '[The Heart of Learning](#)', that **our very survival as a species may depend upon our ability to respond and adapt.** All we can do is try to ensure our children get the best possible start in life.

Parenting Tips - Your Amazing Child

Imagine the world's most powerful computer - your child possesses a brain potentially more powerful. Unlike other organs the brain is irreplaceable. It is what makes us what we are - unique individuals different in some way from all the individuals who have ever lived or will ever live.

There is something almost mystical about the brain. We still know so little about it despite the great advances in our understanding that have occurred during the latter part of the twentieth century.

Who knows what your child has the potential to become?

Parenting Tips - Aim For The Stars

As parents we have all visualized a future for our children. Often this future may reflect the dreams we never realised ourselves.

One of the greatest painters of the last century once said,

"My mother said to me, 'If you become a soldier you'll become a general; if you become a monk, you'll end up as the Pope.' Instead, I became a painter and wound up as Picasso."

What aspirations do you have for your child?

Maybe you are not able to set your sights as high as Picasso's mother.

Maybe you should.



Parenting Tips - Natural Born Learners.

Your child was born to learn.

It is genetically encoded in each of us.

A healthy baby is born with about 100 billion brain cells called neurons.

Each cell could sprout up to 20,000 different branches.

Each branch helps store and process information.

Think of each cell as a seed that falls into rich soil. The richness of the soil and the sun and the rain help the seeds put down a vast interconnecting network of roots deep in the earth.

The soil is the rich learning environment we call the home.

The sun and rain the learning experiences that you provide to stimulate the growth of your child's brain.

And how it grows!

Parenting Tips - Shaping Your Child's Future

At birth your child's brain is not fully formed.

By 6 months it is half the size of an adult brain.

At age three it is about 80% the size of an adult brain although he/she has only attained half of his/her adult height.

During this crucial period the brain decides which connections to keep or which to leave wither and die. Your child's brain is physically taking shape and you are helping create it.

The experiences you offer your child at this vital period will have lifelong consequences.

Experiences cause physical changes to the brain. You literally decide whether your child flourishes in an experience rich environment or languishes in an arid sensory wasteland.

The absence of experiences cause negative changes to the brain.



Parenting Tips - The Most Precious Gift You Can Give

What your baby needs most is your time.

Deb Hawthorn who runs a parenting group in Dunedin, New Zealand once told me the three most important factors in a relationship were **TIME - TOUCH - TALK**. While we cannot 'talk' to our newborn child we can **COMMUNICATE**.

Communication with your child stimulates brain growth. Smiles and cries are ways your child tries to engage with you. He/she recognises his/her mother's voice. Toddlers will communicate with words.

Your baby's main need for the first six weeks of his/her life will be food, comfort and love. Building a strong relationship early ensures less problems in later years.

Jane Dorman says,

"A baby is born into a world in which, essentially, he is blind, can't hear very well and his sensation is far from perfect. And that's a very uncomfortable place for a baby to be. He's trying to figure out: 'Where am I? What's going on? What's going to happen next?'

That's because he can't see, he can't hear and he can't feel very well. So I think the job of a parent is very clear: to give enough visual, auditory and tactile stimulation so that the baby can get out of this dilemma of not being able to see, hear or feel."

Parenting Tips - Windows Of Opportunity

Distinct windows of opportunity for learning occur as you child grows. Some will close only to open again at a later stage of development. Some will never open again

It is vital that as parents you take advantage of the opportunity to provide the experiences that will stimulate growth in these areas.



Sensory Pathways



Sensory Pathways

"What do we think of when we think of education? Schools. Why don't we instruct parents scientifically about how to educate their children? The earlier we start stimulating the brain the better. Why don't we motivate and instruct parents, grandparents and others around the child? Can we conceive of any programme more important."

Dr Luis Machado, Minister for the Development of Human Intelligence in Venezuela

2 Sensory Pathways

To create the learning pathways vital to your child's future, he/she will need a rich diet of sensory experiences.

It is through these sensory experiences only you can provide that brain growth is stimulated and neurons (brain cells) establish more links with each other.

The alternative is that many cells die because they do not receive the stimulus for growth.

There exist **windows of opportunity** when your child is ready to develop in specific areas. It is at these crucial times that sensory stimulation provided by the experiences you give will have the greatest impact on his/her development. The windows of opportunity for sight and motor skills close early in life.

They are opportunities that should not be missed because they will not come again.



Don't panic!

Being a parent can seem a daunting proposition especially when 'well-meaning' friends and family tell you "it doesn't get any easier." A lot of what you do instinctively will help your baby grow and develop and our children still develop regardless of our input, be it negative or positive. Obviously we would want our influence to be a positive one.

Most of us when given a baby to hold for the first time will 'rock' back and fro. This instinctive act on our part actually helps the baby's brain grow. It stimulates what is known as the *vestibular system*.

Give your baby regular periodic vestibular stimulation like rocking and he/she will gain weight faster, develop vision and hearing earlier and **develop distinct sleep cycles** at a younger age.

Would you like me to repeat that last sentence! When you consider we only use about 4% of our brains the more we can help our children at this crucial period the greater the future implications for learning and life.

Hearing Alert!

If your child appears unable to hear you properly it is probable he/she will develop speech problems. If the problem is not identified early on it is likely he/she will not be able to speak properly. This needn't happen if he/she receives regular hearing tests.

One of the most common conditions is known as 'glue ear' and if it is not treated can lead to a dramatic loss of hearing with accompanying learning difficulties. If a child can speak fluently they will eventually write fluently.

The ability to speak fluently is therefore one of the most important gifts you can give to a child. If you spoke three languages in your house your infant would learn to speak them all.

How long would it take us?



The ability to speak fluently is absolutely crucial to your child's future success .

Start talking to your baby from birth. Although he/she won't be able to answer he/she will be able to hear. The more speech he/she hears the better able he/she will be able to reproduce it later.

When you talk to your baby look into his/her eyes. You may then find yourself 'taking turns' with baby – she waves her arms, you talk; he waves his arms to get you to talk more and so on. Once baby is taking turns to 'talk' turn it into a game. When baby makes a sound imitate it in a singing voice and make more entertaining movements for the baby – shake your head, throw your arms up, your baby will make more sounds to keep you play acting to amuse him/her

We are looking specifically at how your child develops in his/her first crucial months.

This is the time when you will assume the responsibility for your child's development. We shall look at **distinct periods of growth:**

Birth to 1 ½ months

1 ½ to 3 ½ months

3 ½ to 5 ½ months

These represent **windows of opportunity** for:

Language Development

Intellectual development

Social & Emotional Development

Motor Development



We shall also examine the distinct characteristics of your baby during a specific period of growth and what you can do to assist that development.

The most important time of a child's development is before they start school.

So whether you intend to home-school your child or not you are your child's first and most important teacher.



Parenting Tips



Birth to 1½ Months

“A teacher can only take you to the threshold of your mind.”

Kahlil Gibran

Shakespeare spoke of the ‘seven ages of man’. The young and the old stand on the threshold of the unknown. The old we can only comfort but the young we can guide.

In the first three years of that journey we have the privilege of being able to help our children every step of the way towards becoming the unique individual they were created to be.

Let’s take a look at the characteristics of each stage of this relatively brief but immensely significant journey:

Birth to 3 ½ months

Just like the elderly your baby will sleep most of each day but for short periods of time.

Hands will be kept clenched in fists.

Your baby will watch and listen to people and things around him/her

He/she will cry as a signal they are uncomfortable maybe because of hunger, boredom, as a release of energy and tension or a diaper/nappy change signal.

Being held or cuddled is important to your baby. **TIME-TOUCH-TALK** are things every relationship will always need.

He/she will need to suck his/her hand or thumb – some babies never stop till late teens!

He/she will utter simple sounds.

Sudden changes like loud sounds or bright lights will startle your baby and often cause him/her to cry

When lying on his/her back your baby will turn his/her head from side to side

He/she is able to see most clearly objects placed 20-38 cm from his/her face.

Language Development

What You Can Do:

Your child is beginning to notice the difference between voices and other sounds -

Get you baby to become familiar with your voice by talking and singing to him/her .

You will notice him/her turning to the sound of your voice – **get close and make eye contact so he/she will associate your face with the sound of your voice.**

Pitch your voice higher and speak slowly using shorter sentences .

He/she is beginning to respond to sounds – **create an environment filled with soft music, gentle conversation etc. Try and provide times of quiet. Noise from the TV and radio shouldn't be loud enough to startle him/her. Try talking and singing in a soothing voice.**

Different cries can mean different things - **you will soon be able to differentiate the different sounds your baby makes when he/she cries.**



Crying is the way he/she will express impatience, lack of attention/affection/ stimulus overload (don't pack the cot with gizmos!), tiredness etc.

There are lots of ways you can soothe your baby like holding him over your shoulder (when he's crying) or cuddling, rocking, singing and letting him suck on a dummy.

Intellectual Development

What you can do:

Hold, rock and smile at your baby. He now needs continuous feelings of love and security.

Move him through the air with gentle rocking and sweeping motions.

He/she is beginning to focus on black and white contrasting patterns as his retina and pupils continue to mature. **The easiest things for him to see are black and white patterns** like stripes and checks not pastel shades that we traditionally associate with babies.

He/she is now becoming more aware of his/her environment so **put him/her in an infant seat you can move to different locations around the house. Place the seat in different positions to provide different views.**

You will need to **keep the room dimly lit** as your baby is now sensitive to bright lights. This will enable him/her to keep his/her eyes open longer. **At night a darkened room is best.**

He/she will now begin to stare at faces. **Make sure he can see your face when you feed or talk to him.**

This is the time play the imitation game where you **imitate your baby's expressions** and keep the game going as long as he/she is interested.

If your baby tries to bring his fist to his/her mouth then **help him** as this is the first sign of co-ordination.



Emotional Development

It is vital you **respond to your baby when he/she cries** as this creates the sense of security he/she needs as a new baby. **You are building your child's trust.**

Too much stimulation will show if your baby turns her face away from you becomes sleepy, fails to respond. Try and **recognise these signs and keep his/her environment as calm and pleasant as possible** making sure baby has quiet times.

Your baby will prefer looking at people's faces to any other kind of stimuli as he/she is showing the first signs of socialisation. **Make sure you respond to her/him when she is alert** and make sure you cuddle your baby making frequent eye contact.

Your baby will now smile when she sees you and, occasionally, stop crying when held. **Smile and talk gently to him/her and if she cries pick her up and comfort her.**

Let your baby grasp your fingers as she/he is now responding to touch.

Your baby will be sensitive to your moods. **Make your enjoyment obvious** when you are with him/her.

Motor Development

By placing your baby on his stomach at least once a day for a short time you will help him strengthen his neck and upper body. His head will continue to need support through this period.

He/she will now begin to follow you with their eyes. **Try moving an object in front of him** so he is encouraged to follow it.

Make sure that **after the first few weeks you don't wrap his blanket too tight** to allow for movement.



I remember when I removed the dummies from my twins because I thought they were becoming too dependant. They still haven't forgiven me! Sucking gives your baby great comfort so **allow him to use his thumb or dummy.**

Try and **avoid sudden noises, bright lights and changes of position.** The best way to calm and comfort your baby in the first few weeks is do what my grandmother did – wrap him Welsh fashion (swaddle).

Children develop at their own pace. This never changes. Later in life they will adopt their own particular learning style.

If you are worried seek medical advice, but remember, Einstein didn't speak until he was three years old and he did ok . . . eventually.



Parenting Tips



The Hidden Growth: 1 ½ to 3 ½ months

The physical growth of your child is obvious as he/she gets stronger and heavier! What is not so obvious what is happening inside your child's brain.

As you provide a sensory-rich environment through the experiences you offer your child the cells inside his/her brain continue to make connections forming learning-pathways in the brain.

Robert Ornstein has estimated there are more possible connections in the brain than there are known atoms in the universe!

Sorry! You'll have to ask him yourself how he worked that one out and I don't have his e-mail address.

The first three years of a child's life has been described as the time when the brain gets wired-up. Imagine what would happen in your home if the electrician didn't finish wiring-up the house properly. Perhaps that's why math in particular used to 'leave me in the dark' when I was in school.

Still, it provided me with the motivation to try and ensure not every child would have to endure the agonies I did during math lessons. It would have been no good Barbie sitting next to me in math class as I found math tough too!

Characteristics

Thankfully your child will now remain awake for longer periods.

He/she should also sleep longer at night

He/she will begin using his/her hands more grasping objects putting things to her mouth, opening them and studying them

It's that wonderful time when she responds by smiling or cooing back at you

He will watch and observe your actions

Is becoming less sensitive to loud sounds and bright lights

Will forcefully move arms and legs to stretch and kick, sometimes at objects

He is now able to lift his head and move it from side to side.

Language Development

What you can do:

Talk is so important. Tell her about what it is she is looking at, hearing or feeling.

Try and **provide different objects for him to explore** with his senses – hear see and feel and as he is exploring describe them to him. You will notice him turning towards sounds he can hear around him.

Provide a 'running commentary' about what you are doing, what he is doing and about the immediate world around him. You may not be Diana Ross but what the heck – **sing to your baby.**

Continue to **imitate the cooing and gurgling sounds** he makes which will encourage him to persist and show him he can get your attention apart from crying!

Hold 'conversations' with him regularly. You will find yourself and your baby 'taking turns' in making sounds.



Intellectual Development

Move your child to different locations around the house and put her in **different positions** as she is now beginning to take more notice of her surroundings. **Color is important** so lay her on a colored and textured quilt that Joseph would have been proud of!

As she begins to take more notice of her hands **tell her what she sees**. "There's your hand!" etc

Place or hold brightly colored objects within you baby's reach. As she tries to grasp it **encourage her to repeat her efforts**.

Color is often an underused factor in learning. We have greater memory recall for color than we do for verbal cues or objects. Mind-maps, universally regarded as one of the best tools ever devised for memory-recall, note-taking and thinking utilize color to great effect. Our math program [**Ensure Your Child Succeeds At Math**](#) also utilizes color via Cuisenaire rods that are themselves a very powerful learning tool if used properly.

We don't advocate using the rods with children under three unsupervised. Infants of three upwards love playing with them but should be supervised although some suppliers stock larger rods for infants.

We would suggest you get familiar with the program which is ideal for using at home with your child regardless of what method the school uses.

Social/Emotional Development

Emotions play a significant role in a child and adult's learning. It is now generally recognized that children who are 'emotionally intelligent' will out-perform those with a higher I.Q. More importantly they will live happier and more fulfilled lives. Jesus once told us to '*love our neighbours as ourselves.*' If we don't love ourselves what chance do our neighbours have? And if parents/partners don't love each other . . . what chance the child?

Schools often employ methods like 'check-in' or 'circle-time' at certain times of the day to try and create a positive 'emotional-learning' environment. In many schools



around the world background music of a certain type (usually baroque eg Mozart) is played to help create a positive emotional learning-state.

'Brain-gym' activities like 'hook-up' are also used to lower stress levels.

The emotional state of the learner is the most critical of all if optimum learning is to happen.

Stress and anxiety are the enemies of learning because they actually produce 'electrical-storms' in the brain that cause us to revert to 'survival mode.'

Many children, usually kinaesthetic learners, need to 'feel good' about what they are about to learn. If they don't, then forget it!

What you can do:

Make a point of smiling at your baby when feeding or just being with him. **Keep eye contact.** Smile! Involve other family members. Let them cuddle, sing, talk softly and rock your baby. **Create a secure and loving environment** for your child.

Show him lots of affection and **give him plenty of your time** while he is awake. He will now get excited when he sees or hears adults he is familiar with.

The quicker you respond to your baby's cries the more confident he will become and the less he will cry. When he does cry or shows signs of discomfort **gently massage and stroke** his back, shoulders, arms and legs.

He will need to suck on something like fingers, thumb or dummy. **This satisfies his emotional needs.**

Baby will delight in imitating your facial expressions. When he does then do it back to him as this will **encourage him to continue.**

Encouragement breeds persistence, a quality so vital if your child is to succeed in life.

"Great works are performed not by strength, but by perseverance." – Dr Samuel Johnson



Motor Development

Put a blanket on the floor , preferably colored and textured, so she can move around freely as this will strengthen muscles and improve co-ordination.

By **placing your baby on his stomach** for a short time you will encourage him to improve control of his head as well as providing a different visual perspective. Lie on the floor with your head elevated on a pillow or cushion and **lie your baby on your chest** so he can look at your face. Do this daily.

If you **hold an object about 30-40cm from his eyes** he will study it. **Move it slowly** from side to side.

Make sure there is sufficient light in the room for him to see all the details.

You can **offer your baby small safe toys** by holding them to the middle of his body.
Hang **safe** mobiles above his cot and change them regularly.

Parenting Tips



“To be or not to be? That is the question.”

Hamlet

To be! : 3 ½ to 51/2 months

With apologies to Will Shakespeare for my loose translation. You and your child have begun a journey of discovery together. **The experiences that you offer will determine whether he/she travels through a barren wilderness or a rich and exciting landscape where fresh horizons continually beckon.**

The journey will shape your child irrevocably. At the end of the first three years either vital connections between neurons in the brain have been or they have not. We have no choice but ‘to be’ however we are free to choose for our children to what degree they ‘will be’ and what they can become.

“When I look into the future it’s so bright it burns my eyes.”

Oprah Winfrey

Isn’t that the way we want our children to view the world?



Characteristics

- Your child will now become increasingly interested in his surroundings.
- Watch and stare at movements and changes in scenery.
- Will become more accurate when grasping objects and examine them with her hands.
- She will now be able to tell your voice from someone else and will listen intently to sounds and voices
- Now he is able to lift his head and chest using his forearms for support and can turn from side to side and roll over
- She is able to sit with support.

Language Development

What you can do:

He will benefit from sounds that are within his immediate surroundings ring a soft bell directly to the side of his head about 45 cm away from his ear and see if he can turn towards it.

Help him to recognise and react to his own name by frequently saying it to him gently in a loving way.

Recite nursery rhymes or sing songs to him while you undertake those routine everyday chores that babies create!

This will help him identify and react positively to your voice.

Don't make the mistake of thinking that because he doesn't talk yet he won't understand. In fact **he is beginning to associate particular sounds with actions and objects** (Nouns and verbs being the easiest vocabulary to eventually introduce to your child.)

Parents often looked very disbelieving when, having asked how best they can help their child at home, told simply to **take time to read to him/her making it an enjoyable experience.**

Pay close attention to the sounds your baby makes and try to imitate them. He may now be happy to spend some time alone 'practising' his sounds when he wakes up. You may even begin to 'recognise' some of the sounds he now makes like aah, ee and ooo. Respond to them enthusiastically and with obvious pleasure.



Intellectual Development

What you can do.

Continue to do what you have already been doing.

When she is lying on the blanket give her some safe and interesting toys to explore with her hands.

She will want to put things in her mouth.

Encourage her to do this with safe toys.

You can now introduce inflatable toys which your child will delight in watching and kicking!

Take your baby with you on short shopping trips to allow him to experience and enjoy different environments.

Use a mirror to show him his face and facial expressions. Play with him.

The more experiences you provide the more you stimulate the vast network of neurons in your child's brain creating and reinforcing the learning pathways.

It is **these connections that will form the basis for all future learning and mental ability.** Just as highways link city to city so these pathways connect one cell to another within the brain. And as with road networks there are always more important places, like large cities.

The brain also has 'more important places' or processing centres, eight in all. We call them intelligences – linguistic, visual, spatial, bodily-kinaesthetic, interpersonal (social), intrapersonal (introspective) and naturalist intelligence.

Learning intelligences, how you recognise them and how they impact on how we learn will form the basis of another course.



Social/Emotional Development

Always respond enthusiastically when your baby accomplishes anything be it sounds or actions.

Maintain close interaction with him – rocking, cuddling etc.

Always hold him when feeding from a bottle and never let him hold his own bottle in bed.

Have fun! Tickle him and join in with his laughter.

Play with your baby by showing him how to use a variety of safe toys or gadgets and delight in his efforts to grasp and explore them.

Peek a boo is a great game to help encourage him to react and show pleasure when interacting with family members and friends.

Try and anticipate his needs by recognising the different cries he makes so he knows he can rely on you to meet them.

Don't wait until he is asleep before putting him to bed. Do it when he is obviously tired so he can get used to falling asleep on his own – something we singularly failed to do as parents with embarrassing consequences!

I often fell asleep reading a story while my infant son clambered out of bed – quietly not to wake me –and went down stairs to inform his mother he'd got me to sleep again.

If your baby does awaken at night then allow him time to calm himself and go back to sleep.

He/she won't always need feeding or changing but if he persists after 5 to 10 minutes it's best to check!

The important thing is to help him learn how to get back to sleep on his own.

Motor Development

How you can help

Your baby is going to need free, open spaces to roll, move and wriggle arms and legs.

If you hold objects slightly above and in front of him while he is lying on his stomach he will lift his head and chest using his forearms for support.

Lay him on his side as this will encourage him to roll onto his stomach or his back.

He will now enjoy sitting supported on your lap or leaning up against pillows.

This strengthens his upper and lower torso.

Encourage him to examine toys with both hands.

Exercising the body is good for the mind. We have now discovered that people who exercise their fingers regularly like concert pianists frequently stay alert into old age. Our program [Ensure Your Child Succeeds At Math](#) utilizes Cuisenaire rods, the most complete math model ever invented. **When children simply play with them they are stimulating the brain.** Children need to learn acquire spatial awareness and this means a baby must have opportunities to use his body freely.

In another course we see how spatial awareness can be used very effectively do improve memory recall.

It's what the Romans did! I'm digressing, time to get back to your baby.

If you place toys within his reach he will be encouraged to reach out and grasp them.

Put pressure against your baby's feet with your hands and encourage him to push against you.

Hold him in a standing position for 30 to 45 seconds and allow him to support his weight on his legs.

Lay your baby on the floor with his feet near a crib, gym or noisy objects on a string tied between legs of furniture to invite kicking practice.



Next: That's Up To You

If you have enjoyed this course and would like to learn more about your baby's development for the critical first three years of his/her life then please email me phil@listenwithus.net

Just write 'More about baby' in the message bar and send.

Thanks and I sincerely hope you found this course of value to you and your child.

Phil Rowlands



Author Phil Rowlands was a primary school head teacher in the UK for 27 years. He has travelled extensively in order to research educational developments based on the latest research into the brain.

His early years multi-sensory maths programme, **'Ensure Your Child Succeeds At Maths'** is the fruit of several years of research and development and has received critical acclaim within the education community.

"Absolutely Superb"

(Mark Haward (Mind Kind U.K.)

"This Looks Very Good"

(Anne Zeise - A to Z Home's Cool Homeschooling Web Site)

"Very Impressive"

Merle Silverman (Formerly Learning Resources Ltd)



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“Math The One Subject Most Likely To Cause Your Child To Fail”



I once asked a mother what came to mind when she heard the word 'math'. Her answer took me by surprise. "Clouds", she replied.

Apparently every time the math teacher walked into the room she automatically switched off and gazed out of the window.

Sadly, **long before they reach the age of seven many children have 'switched-off' to math.** Eventually most children become parents. One day they hear the dreaded words . . .

“Dad, Mom, will you help me with my math homework?”



Frustration, anger, misery, humiliation and despair . . . math has the power to evoke all these emotions.

Math is the one subject that can seriously damage your child's academic health.

Unfortunately it's also one of those subjects that your child will probably need if he/she is to achieve their potential in life.

“It is absolutely vital your child gets the right start at the earliest age possible.”

We are in good company. One of the greatest psychologists who ever lived recalls the horrors of a math lesson. . .



"The teacher pretended that algebra was a perfectly natural affair, to be taken for granted, whereas **I didn't even know what numbers were.** Mathematics classes became sheer terror and torture to me. I was so intimidated by my incomprehension that I did not dare to ask any questions."

Carl Jung



ListenWithUs.net

Jung's experience is sadly commonplace.
Young children are frequently introduced to formal math before they have grasped the concept of number.

Number is an abstract concept. What does that mean?
Let me ask you a question.
"Go and fetch me five . . ."

You are probably thinking right now, "Five what?"
Precisely! Numbers only exist in relation to something else . . . five cars, five ducks, five cats etc.



If children have not yet grasped the concept of number a symbol such as '5' is utterly without meaning and can become a source of intimidation, terror and torture.
A complete turn-off.

"We Believe We Have The Answer . . ."



Our Multisensory Early Years
Math Programme . . ."

**Ensure Your Child Succeeds At
Math**

"What makes us so sure?"

Well . . . it evolved from classroom practice.

- . . . **it is informed by the latest educational research into the brain**
- . . . it utilizes **the best math manipulative in the world** – Cuisenaire rods
- . . . it is **designed specifically for tactile, visual and kinaesthetic learners** – up to the age of seven children are predominantly visual and hands-on learners.
- . . . it **can be enjoyed by parents, carers and teachers** learning alongside their children in a stimulating, relaxed and creative learning environment.

"You will be amazed at your child's mathematical potential!"



You may also be amazed by your own!

Powerful Features Of The Programme Include . . .

The Use Of Colour – colour is potentially underused as **an aid to memory recall** and classification.

Kinaesthetic Learners – research has proved that **exercising the digits stimulates the brain**. As your child creates with the rods he/she will actually be stimulating areas of the brain!

Links With Language Development – the program **assists your child's** language development.

Visual Learners– **children enjoy the visual impact of their creations that enable them to 'see' mathematical patterns and concepts**. Because 90% of our information intake is visual this feature is very important. Edison and Einstein were visual learners.

"I never think in words, only pictures" - Thomas Alva Edison

Incidental Learning– Much information is unconsciously acquired as we listen to T.V. advertisements etc. **As children play with the rods they are unconsciously absorbing mathematical concepts** and enjoying the experience immensely.

Tailored For Your Unique Child – **play, games and open ended challenges** form the path along which your child/pupils will travel at his/her own pace.

Animated Support – the programme is supported by **over 50 flash animations** demonstrating a particular developmental unit. We show you how to create your own animations using a simple flash animation programme.

The Perfect Recovery Program - Older children and adults have used EYCSAM to **acquire an understanding and love of math** they never discovered the first time round.

Learn How To Learn - **Ensure Your Child Succeeds At Math** is far more than an excellent math program. Because it is based on the latest research into how the brain learns best it actually **teaches thinking skills and helps your child learn how to learn**.

LIFE is all about options and choices.

The more options open to you the more choices you have.

If my son is happy sweeping the roads then I am genuinely pleased for him - but sweeping the roads because you want to and doing it because you have to are entirely different propositions.

It's so important children are turned-on and tuned-in to math from the start . . .

WHY? . . . Well, selfishly forgetting about the economic state of the nation . . . **for the sake of your child's future.**



Ensure Your Child Succeeds At Math is designed to set your child on that road.
"Why not travel with him?"



WARNING!

This programme is only for parents who actively wish to get involved with their child's learning.

For more information visit www.listenwithus.net/maths.html



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