



# HUMAN LIFE

## Growing and Developing

### LIFE INVOLVES CHANGES



YOU ARE  
DIFFERENT NOW  
FROM WHEN YOU WERE A  
BABY BECAUSE OF  
CHANGES TO YOUR BODY.  
YOU WILL BE DIFFERENT IN  
THE FUTURE AS AN ADULT  
BECAUSE OF MORE  
CHANGES TO YOUR BODY.



This leaflet describes some of these changes and helps you to understand that everyone has some basic needs so that they can grow.

## THE FIVE BASICS FOR LIFE - GROWTH, FOOD, MOVEMENT, SHELTER AND REPRODUCTION

**GROWTH:** All living things grow – think of a small acorn turning into a massive oak tree, or a little kitten growing into a cat.

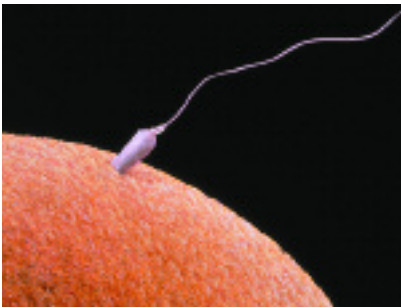
**FOOD:** For growth to take place, all living things need food. Most plants get their food from the sun. Animals, though get their food by eating plants or other animals.

**MOVEMENT:** As plants get their food from the sun they do not usually move, but animals will move because they have to collect or catch their food.

**SHELTER:** All living things need the right conditions to live, otherwise they will soon die. A rabbit will make a burrow underground to protect itself from being eaten by a fox. A snail will crawl back into its shell to stop a bird from eating it. Human beings need shelter from the weather and other dangers, so we build homes too.

**REPRODUCTION:** All living things eventually die. No plant or animal or person lives forever, in fact very few people reach 100 years old! Life carries on because living things are able to reproduce themselves. Plants produce seeds which grow into new plants, birds lay eggs from which new young birds hatch, in humans, each new young life grows inside his or her mother for 9 months and then is born into the world.

### LET'S TAKE A LOOK AT HOW A HUMAN BABY GIRL DEVELOPS INSIDE HER MOTHER ....



**FERTILISATION** – The beginning of life for each human being is fertilisation when the father's sperm enters the mother's egg. This new human being is different from the sperm and the egg. Many of this girl's characteristics are laid down at this moment: the colour of her hair, the colour of her eyes and skin, and of course that she is a girl. She is unique – there is no other human being like this girl in the world. If any other sperm from her father had fertilised her mother's egg then a different baby would have been created – maybe a boy, maybe with different hair or eye colour, but certainly different.

**IMPLANTATION** – She will grow and divide. The cells of her body will double very fast: first one cell, then two, then four, eight, sixteen and so on as she moves towards the mother's womb where she will live until she is born. This tiny human life is in control of her mother's pregnancy. To keep on growing all living creatures need food, so this little girl has sent a chemical message to her mother. This causes the walls of the womb to form a soft spongy lining into which the embryo (as this little girl is now called) burrows and makes her home, receiving food and shelter from her mother.



**28 DAYS** – Between 21 and 28 days after fertilisation the little girl's heart begins to beat. It will beat now every second of her life until she dies, perhaps as an old lady in 90 years time. The head and body are starting to form and the arms buds are appearing. The young baby has produced a placenta. The girl is attached to the placenta by the umbilical cord. She will use the placenta and umbilical cord to receive her food and remove her waste products.





**SECOND MONTH** – Our baby girl is growing very fast at this stage. She grows from only 5mm in length at the start of the month to 40mm in length at the end of the month. At 6 weeks her fingers start to appear, followed by her toes a few days later. After another few days this little girl has her own fingerprints, unique to her and destined to be used to identify her once she is born. Her bones start to develop at 8 weeks.

Our baby girl will also start to move during the second month as her nervous system starts to develop – movement that will be vital in her later development. She is developing rapidly and yet her mother might only just have become aware that she is pregnant.



**THIRD MONTH** – Our baby girl is developing the sense of touch. At nine weeks she will grab an object placed in the palm of her hands or curl her toes away if the sole of her foot is touched – rather like you might if someone tried to tickle your feet! At 11 weeks our baby even starts to go to the toilet! By 12 weeks our baby can open and close her lips, wrinkle her forehead and turn her head. She can also react as if feeling pain before the end of the third month.



**FOURTH AND FIFTH MONTHS** – In this period in the middle of pregnancy our baby girl develops her sense of hearing. Scientists have shown that babies in the fourth and fifth month react in different ways to different music – soothing music will relax a baby while a loud piece of music from the latest pop charts might cause our baby to “dance” around the womb!

**FINAL MONTHS** – Much of the major development in our baby girl is now complete. What she needs now is time to grow more and to gain weight. She will receive antibodies from her mother to help her fight infection when she is born.



**BIRTH** – Birth is a big shock. Our baby girl moves from a warm, secure, well-fed environment in her mother’s womb to the outside world where she must feed and breathe in a different way, where the temperature around her is changing and where she is exposed to infections. The growth and weight gain she has made in the final months in the womb will help her in these early weeks outside the womb. She is the same baby girl before and after birth. Like all humans she will still grow and move and to do this she will need to feed and have shelter – only her home has changed – she has left the safety of her mother’s womb for ever.



**LIFE AFTER BIRTH** – Our baby girl will continue to grow and develop as she did before birth. She will learn to walk, talk, feed and dress herself. Later she will go to school and eventually to work. In later life she may marry and have children of her own. In old age she may become frail and need the support of these children of hers to support and look after her. Throughout her life she will always need food and shelter, but the speed of her growth and development will never be as fast or dramatic as it was when she was hidden in the womb.



SCIENCE AND RELIGION BOTH AGREE:

## YOU ARE UNIQUE – AN INDIVIDUAL LIKE NO OTHER



Science demonstrates that every human being is unique – each of us is different. We receive our genetic make-up from our father’s sperm and our mother’s egg, but we are not the same as either our father or mother.

Of course, there are similarities between human beings; we all belong to the same species. The similarities within families are even greater, but even within families there is no other person quite the same as you. Science has even shown that identical twins who share the same genetic material will grow up to have differences.

Science demonstrates what the world religions have always taught and believed – each human person is a unique individual. Christians believe that every human being is special. This comes from the belief that every person is made in the image of God.

In the creation story God created man and it was good. *Then God said, “And now we will make human beings; they will be like us and resemble us. They will have power over the fish, the birds, and all animals, domestic and wild, large and small.” So God created human beings, making them to be like himself. He created them male and female.* **GENESIS 1: 26-27**

God reaffirmed the value in which He holds human life. He sent His only Son to become a man. Jesus did not appear on earth as a fully grown adult. He was conceived in the womb of His mother, Mary. He grew and developed in the same way as we all do, from before his birth.

*Soon afterwards Mary got ready and hurried off to a town in the hill country of Judea. She went into Zechariah’s house and greeted Elizabeth. When Elizabeth heard Mary’s greeting, the baby moved within her. Elizabeth was filled with the Holy Spirit and said in a loud voice, “You are the most blessed of all women, and blessed is the child you will bear! Why should this great thing happen to me, that my Lord’s mother comes to visit me? For as soon as I heard your greeting, the baby within me jumped with gladness. How happy you are to believe that the Lord’s message to you will come true!”* **LUKE 1:39-45**

Jesus teaches that God values us and has us in His care. *Aren’t five sparrows sold for two pennies? Yet not one sparrow is forgotten by God. Even the hairs of your head have all been counted. So do not be afraid; you are worth much more than many sparrows!* **LUKE 12: 6-7**

The other great world religions too hold that human life is to be cherished and valued.



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