1 **Life Stages**

|  |  |
| --- | --- |
| **MPj04230340000[1]Infancy 0- 2 years** | **Early childhood 3-8 years**  **MPj04395250000[1]** |
| **Adolescence 9-18 years**  Description: http://www.google.co.uk/url?source=imgres&ct=img&q=http://i.telegraph.co.uk/multimedia/archive/02403/happy-teenagers_2403313b.jpg&sa=X&ei=GZ25UbmMMYXGtQbznIDgCw&ved=0CAQQ8wc4GA&usg=AFQjCNGD5fAeNyKdjmN_JtuzcKuF2H3fPQ | **MPj04393410000[1]Early adulthood 19-45 years** |
| **MPj04387290000[1]Middle adulthood 46-65 years** | MPj04223650000[1]**Later adulthood 65+ years** |

**Aspects of development**

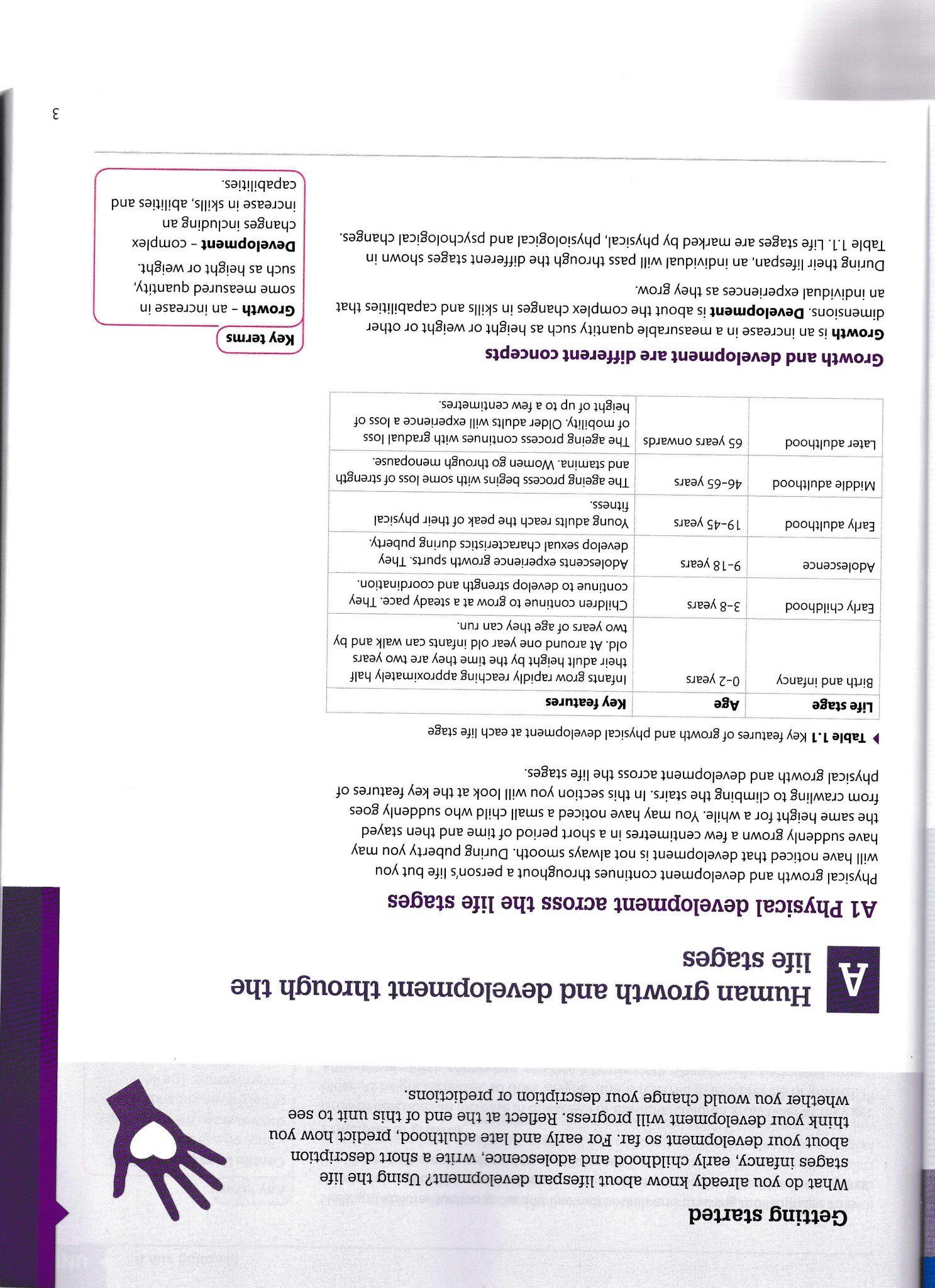
|  |  |  |  |
| --- | --- | --- | --- |
| **Physical**  Description: http://www.google.co.uk/url?source=imgres&ct=img&q=http://www.nhs.uk/Livewell/fitness/PublishingImages/200290336-001_seniors-tennis_377x171.jpg&sa=X&ei=9565UZ7YIM_LsgbQ44HYBA&ved=0CAQQ8wc4Eg&usg=AFQjCNHOo_14yLZ4br2yowwRKSMoRyzryQ | **Intellectual**  Description: http://www.google.co.uk/url?source=imgres&ct=img&q=http://www.rvhs-denyer.com/web-back/child-dev/images/intellect-ch12.jpg&sa=X&ei=sZ65UeewMY7ZsgaqsIDICA&ved=0CAQQ8wc4Ag&usg=AFQjCNHVkrlUPkGG1CRDes2kj4sHy-ydZw | **Emotional**  Description: http://www.google.co.uk/url?source=imgres&ct=img&q=http://1babyborn.com/wp-content/uploads/2011/07/72459999.jpg&sa=X&ei=Pp-5UZ28DsmltAb74IAw&ved=0CAQQ8wc4FA&usg=AFQjCNHzRA-M2IbzJfsbr8DCkoRMe6oakw | **Description: http://www.eduguide.org/education/article_images/istock_aldomurillo-8-group-of-diverse-teen-friends-hanging-out-c.jpgSocial** |

Physical development across the life stages

Physical growth and development continues throughout a person’s life, but people do not all develop at an even rate.

During puberty adolescents grow rapidly but this does not continue throughout life. A toddler suddenly goes from crawling to walking then to being able to climb the stairs.

Below is a table which shows the key features of physical growth and development across the life stages:



Notes:

Life stages show typical development, but development is not fixed.

Development is sometimes rapid and at other times more steady.

Growth and Development

**Growth:** an increase in a measurable quantity eg height or weight

**Development:** an increase in skills, abilities and capabilities. Complex changes that an individual experiences as they grow.

During their lifespan, an individual will pass through the different stages shown in the table on the previous page. Life stages are marked by changes:

**physical physiological psychological**

**( learning to crawl ) ( puberty ) ( cognitive/emotional )**

Milestones/norms

Milestones of development (or norms of development) refer to the expectations associated with different stages of the lifespan. For example an ability achieved by most children at an expected age. It can involve skills such as:

|  |  |
| --- | --- |
| physical | most children can sit without support at 6-7 months |
| social | able to play in small groups, making up own games and rules; does not cope well with losing (6-8 years) |
| emotional | the ability to identify with or understand another’s situation or feelings ‘walking a mile in someone else’s shoes’ |
| cognitive | during adolescence, young people develop the capacity for abstract thinking, for example think through complicated ideas in their heads without having to see an image; think of possible outcomes of a scientific problem, not just the obvious ones. |
| communication | infants begin to make two word sentences, such as ‘cat goed’ (around two years old) |

Milestones are useful tools for checking the progress of one child against many other children.

Principles of growth

Children grow taller as they get older. As height increases, so does weight - this is referred to as the process of growth. Although growth is continuous, the rate is not smooth. There can be periods of more rapid growth in infancy and again in puberty which means there can be quite a difference in the rates of growth of two people who are the same age. There are also differences in growth rates for boys and girls. Growth rates also vary in different parts of the body, for example the head circumference grows more rapidly than other areas in the first months of life. When referring to growth it is important to consider two dimensions:

* weight
* height/length





HEIGHT AND WEIGHT CHARTS/

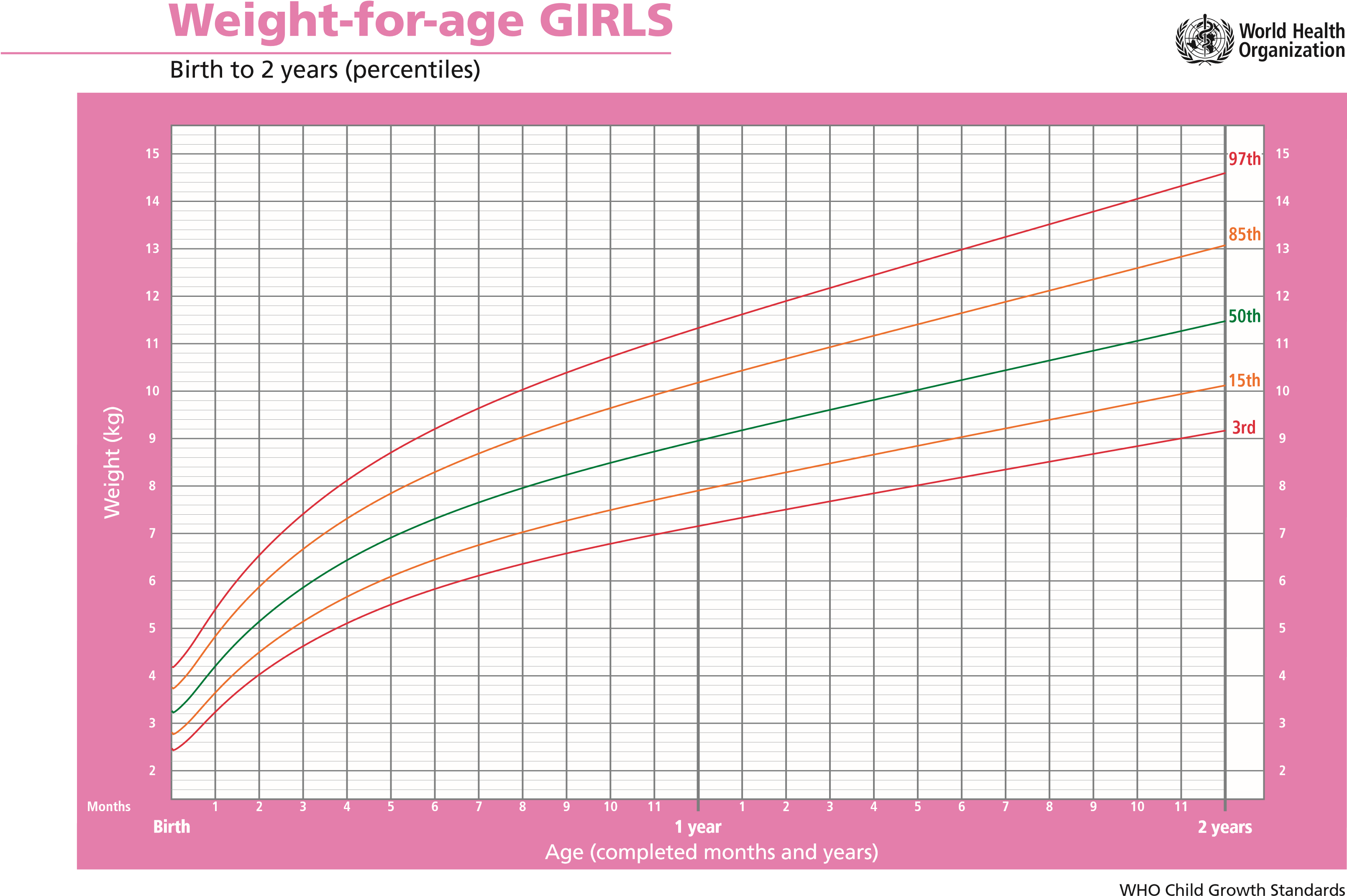
CENTILE CHARTS

As soon as babies are born they are .................................. and ......................................., and ........................................... charts are used regularly to assess the growth rates of babies and young children.

A **health visitor** is the name of the health professional who monitors the development of children aged 0-5 years.

Babies are weighed and measured regularly because weight gain shows they are being fed properly. They are usually weighed every .......................... for the first two months of their lives, then ............................ a month for the next ten months, and every ..................... months after the age of 1 year old.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| WEEK | ONCE | WEIGHED | SIX | MEASURED | CENTILE |



Using centile charts

Use the data below to plot Jessica’s weight on the centile chart.

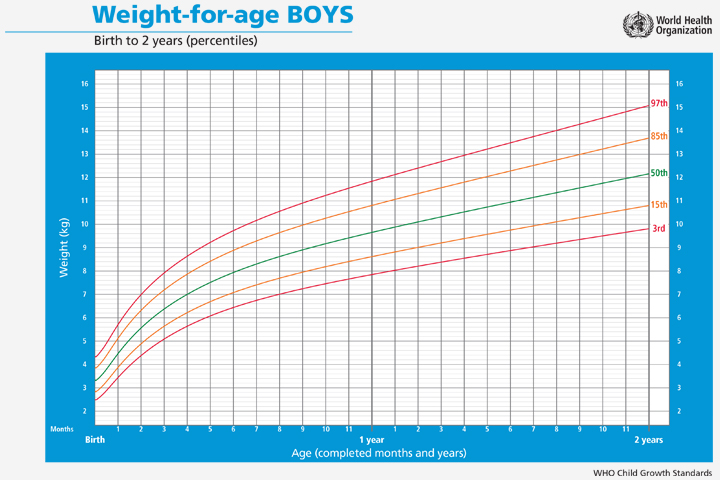
|  |  |
| --- | --- |
| Age | Weight (kg) |
| Birth | 2.4 |
| 2 months | 3.8 |
| 5 months | 5.8 |
| 9 months | 7.4 |
| 12 months | 8.6 |
| 15 months | 9.5 |
| 20 months | 10.5 |
| 24 months | 11.4 |

Explain why a 6 month old baby girl weighing 5.5kg would give cause for concern.

……………………………………………………………………………………………………………………………………….

Why do you think a separate chart is used for boys and girls?

………………………………………………………………………………………………………………………………………...



Using centile charts

Use the data below to plot Joe’s weight on the centile chart.

|  |  |
| --- | --- |
| Age | Weight (kg) |
| Birth | 3.8 |
| 2 months | 6.3 |
| 5 months | 8.1 |
| 9 months | 9.7 |
| 12 months | 10.0 |
| 15 months | 11.7 |
| 20 months | 12.8 |
| 24 months | 14.1 |

What weights would give cause for concern for an 18 month old baby boy?

………………………………………………………………………………………………………………………………………

At birth and then between six and eight weeks, a baby’s head circumference will be measured to check the size and growth of the brain.

Infants grow rapidly during the first six months of their lives. Healthy infants double their birth weight by four to five months and triple it by the time they reach a year old. By the age of two, a healthy infant will be approximately half their adult height.

Not only can growth measurements help a health visitor to monitor a child’s health and development, they can also identify other issues, for example if an infant is over or underweight or growing too slowly. A health visitor will carry out measurements and plot the results on a growth chart to ensure that an infant is meeting their milestones.

If an infant or child is growing as expected their weight will rise steadily following the **centile lines** marked on their growth chart.



All information is recorded in a **personal child health record.** This ensures that if there is cause for concern about height or weight an early referral to a paediatrician can be made. These records include vaccinations schedules, information about breastfeeding and potty training etc.

Role of a health visitor: usually a post graduate course. Responsible for 0-5 years.

Assesses children’s growth and development. Manages child protection issues. Refers onto other paediatric services.

Principles of development:

There are certain patterns of development that are the same for all infants, children etc:

Development describes changes that might be complex and involve ability levels altering.

1 Babies sit, then crawl, then walk

2 Gross motor skills develop first, followed by fine motor skills

3 Puberty begins 2-4 years earlier in girls

4 Once puberty starts in boys they grow taller and heavier than girls

5 Development happens:

|  |  |
| --- | --- |
| http://what-when-how.com/wp-content/uploads/2012/08/tmpe02626_thumb.pngfrom head to toe  (cephalo-caudal) | an infant will first be able to control their head, then develop control over their body to enable them to sit, and finally have control over their legs and feet to allow them to crawl and eventually walk |
| http://what-when-how.com/wp-content/uploads/2012/08/tmpe02626_thumb.pngfrom the inside to the outside  (proximo-distal) | an infant learns to control movements in their body first, then in their arms and legs until finally, they can control the small muscles in their fingers |

6 in the same sequence but at different rates

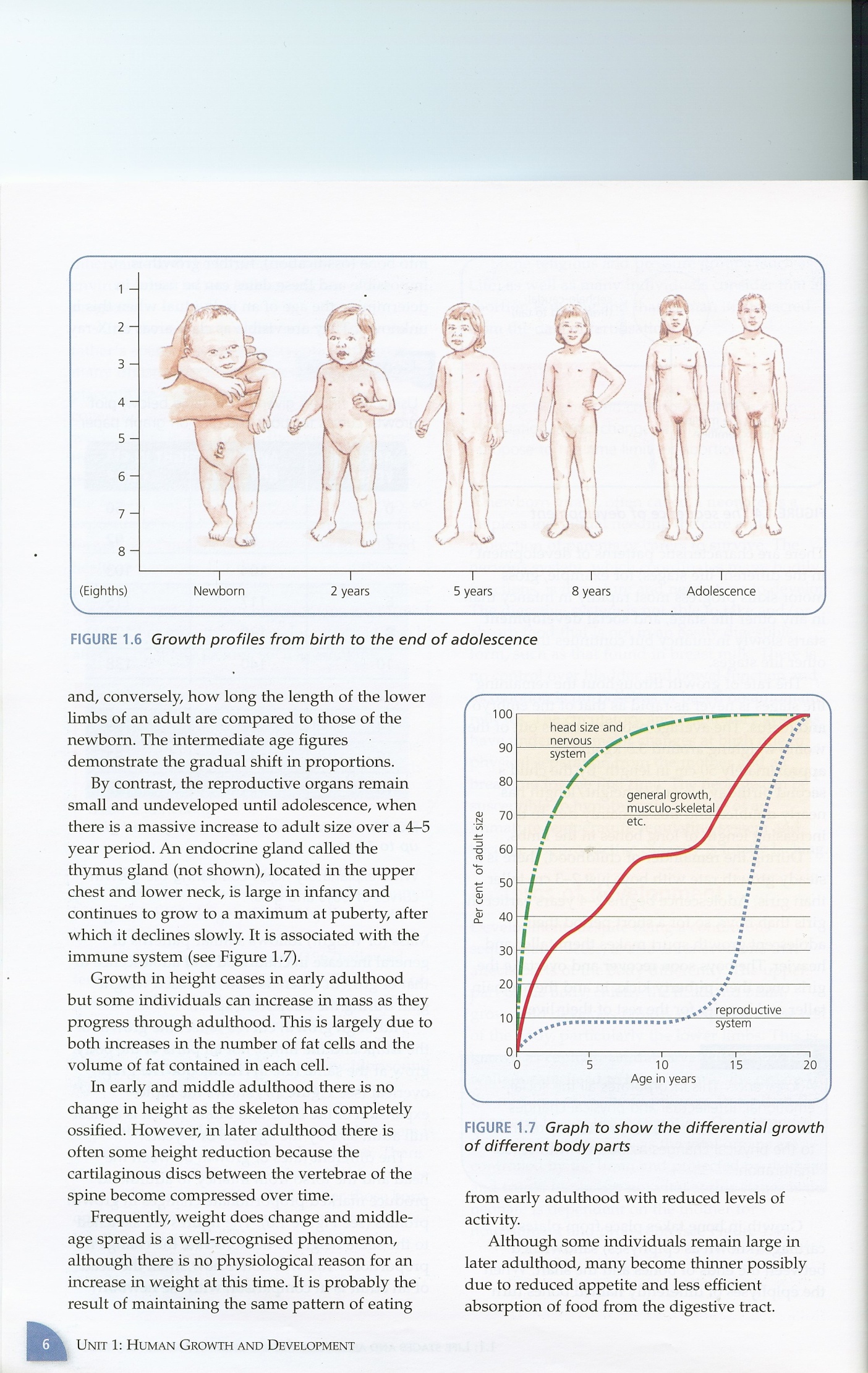
7 holistically - areas of development are dependent on and influence each other

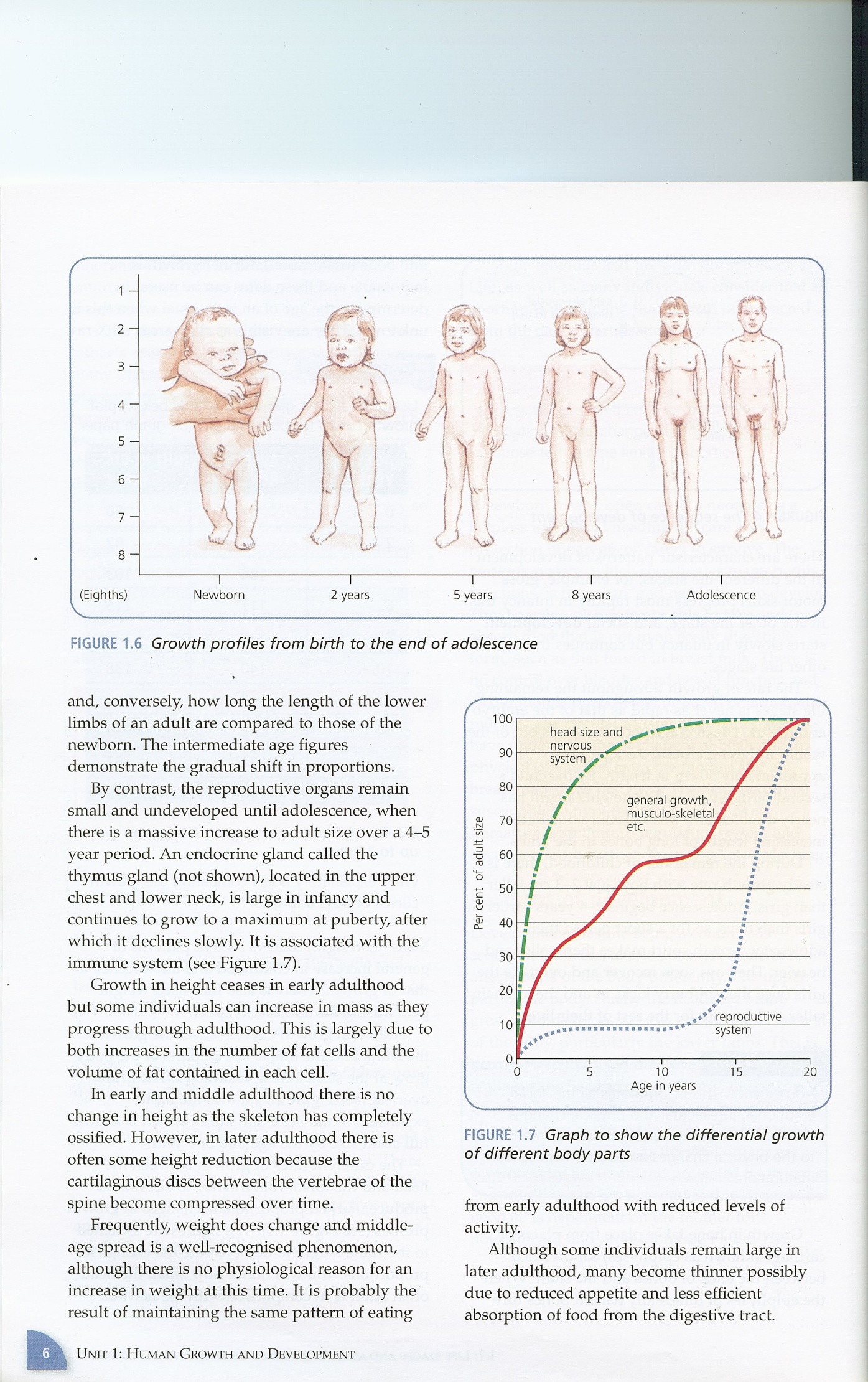
Principles of growth

1 Growth is an uneven process:

2 Rate of growth is most rapid immediately after conception (first 8 weeks)

3 Infant’s head is ¼ of its size, whereas in an adolescent 1/8 of size





3 Differential growth of body parts

Norms are an **average** set of expectations, if a child develops faster or slower it does not necessarily mean the child is ‘gifted’ or there is something wrong.

People experience the PIES holistically, for example a child’s social skills is dependent on its language and intellectual development. It is not possible to assess one aspect of development without looking at other aspects.

Developmental milestones are a useful guide to help health professionals recognise, monitor and take appropriate action if development is delayed in one or more of the developmental areas.

**Key words:**

|  |  |
| --- | --- |
| menopause |  |
| mobility |  |
| paediatrician |  |
| health visitor |  |
| centile lines |  |
| holistically |  |
| life expectancy |  |
| life course |  |
| maturation |  |
|  |  |
|  |  |

Is it growth or development? (G or D)

1. a single cell getting bigger
2. cells dividing into 2, then 4, then 8 cells – all similar cells
3. a cell differentiating into a specialised cell, such as a nerve cell
4. a child getting taller
5. a baby beginning to walk
6. a young child beginning to say short sentences
7. an adolescent beginning menstruation
8. a middle aged person putting on a lot of weight
9. a tumour increasing in size
10. an older person learning to use a computer

Homework: Growth and development/Patterns of development (…./10)

Define growth and development (4)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

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Identify and describe one physical pattern of development occurring in all infants (2)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

Explain why it is important to measure and record a new-born’s height and weight (2)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

Baby Brad is eight weeks old. He has been taken to the clinic to check that he is growing at the expected rate. A health visitor checks his weight and will plot it on a chart. She is aware that infants triple their weight in their first year.

Identify two other measurements that HV will take (2)

1 ……………………………………………………………………

2 …………………………………………………………………..