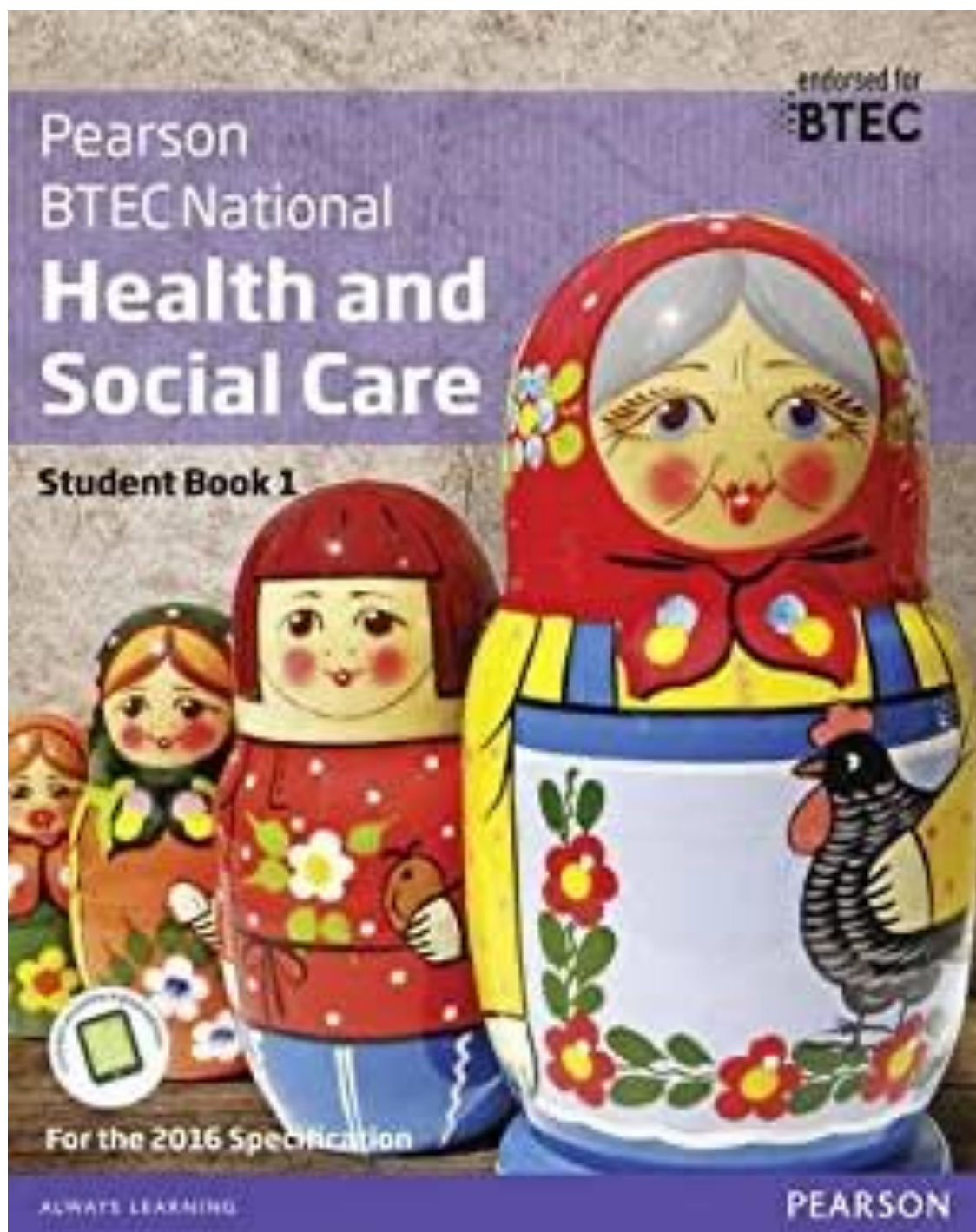


# Level 3 BTEC Extended Certificate Health and Social Care



Passport to Sixth Form

Name: \_\_\_\_\_

# What will I be studying?

This course allows you an insight in the many roles available within health and social care from nurses to social workers to child care assistants and beyond they have many key features that we shall explore and apply. You will be studying a range of units which will help you to gain skills that will be valuable in your chosen profession or future study. You will learn about the human body and mind alongside the changes across time. You will learn what it means to work in the sector and what skills and behaviours you will need to develop. We will study the following units; although the final one is subject to change and you may not study them in this order.

## Unit 1 Human Lifespan Development – Exam in January 2023

During unit one, **Human Lifespan Development**, you will focus on:

- Understand the different influences on an individual's development and how this relates to their care needs.
- You will be introduced to the biological, psychological and sociological theories associated with human lifespan development.
- You will explore the physical effects of ageing and the theories that help to explain psychological changes.

How will I be assessed? this is a paper based exam, that lasts for 1 hour 30 minutes, that is worth 90 marks. There is a variety of short- and long- answers. The questions are designed to test your knowledge on individual's development, the factors that affect this and the theories that explain this.

## Unit 5 – Meeting Individual Needs – Coursework

During unit five, **Meeting Individual Care and Support Needs**, you will focus on:

- You apply knowledge in order to provide the care and support that meets the needs of an individual in a health and social care environment, for this you need to understand the principles and practicalities that are the foundation of all the care disciplines.
- You will need to consider ethical issues that may arise and challenges the individual may face in order to provide personalised care.
- You will reflect on the different methods used by professionals working together in a multi-agency team to provide a package of care and support that meets individual needs.

How will I be assessed?: by a series of assignments set at college. You will provide practice assignments to help you prepare for the final assessment. You will need to check that your work first meets all the pass criteria before moving on to merit and then finally distinction criteria.

Below the table are two resources, a text book chapter and a revision guide. You need to use these to make notes on the following content. You will need to learn the main concepts of physical development and will be given a 30 minute test on this content in your first lesson.

Specification point	Content	R	A	G
A1 Physical development across the life stages	<ul style="list-style-type: none"> <li>• Growth and development are different concepts:               <ul style="list-style-type: none"> <li>- Principles of growth – growth is variable across different parts of the body and is measured using height, weight and dimensions</li> <li>- Principles of development – development follows an orderly sequence and is the acquisition of skills and abilities.</li> </ul> </li>   <li>• In infancy (0–2 years), the individual develops gross and fine motor skills:               <ul style="list-style-type: none"> <li>- The development of gross motor skills</li> <li>- The development of fine motor skills</li> <li>- Milestones set for the development of the infant – sitting up, standing, cruising, walking.</li> </ul> </li>   <li>• In early childhood (3–8 years), the individual further develops gross and fine motor skills:               <ul style="list-style-type: none"> <li>- Gross motor skills: riding a tricycle, running forwards and backwards, walking on a line, hopping on one foot, hops, skips and jumps confidently</li> <li>- Fine motor skills: turns pages of a book, buttons and unbuttons clothing, writes own name, joins up writing.</li> </ul> </li> </ul>			

• In adolescence (9–18 years), the changes surrounding **puberty**:

- Development of **primary and secondary sexual characteristics** o the role of **hormones in sexual maturity**.

• In early adulthood (19–45 years), the individual **reaches physical maturity**:

- Physical strength peaks, **pregnancy** and **lactation** occur
- **Perimenopause** – oestrogen levels decrease, causing the ovaries to stop producing an egg each month. The reduction in oestrogen causes physical and emotional symptoms, to include hot flushes, night sweats, mood swings, loss of libido and vaginal dryness.

• In middle adulthood (46–65 years), the female enters **menopause**:

- Causes and effects of female menopause and **the role of hormones** in this
- Effects of the ageing process in middle adulthood.

• In later adulthood (65+ years), there are many **effects of ageing**:

- Health and intellectual abilities can deteriorate.

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 weight or height an early referral to a paediatrician can be made. An infant's head circumference will also be measured if there is any concern about development.

### Principles of development

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

Development happens:

- ▶ from head to toe – 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
- ▶ from the inside to the outside – 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
- ▶ in the same sequence but at different rates
- ▶ holistically – areas of development are dependent on and influence each other.

Development can be seen as a journey. As the journey progresses, children reach a number of key **milestones**. These are also referred to as **developmental norms** and describe the skills that infants, children and adolescents are expected to develop at particular ages or stages of their life. These norms include walking, talking or tying shoe laces. The four main areas of skills acquisition are:

- 1 physical – gross and fine motor skills
- 2 social development
- 3 emotional development
- 4 intellectual development and language skills.

Although children will pass through the same developmental stages, you should remember that every child is unique and develops at their own rate. Norms help professionals describe an average set of expectations. If a child develops faster than the norm it does not necessarily mean that the child is 'gifted'. Neither does it mean that there is something wrong if a child develops more slowly.

Very few people experience their life in 'compartments' labelled 'physical', 'intellectual', 'emotional' or 'social'. Most people experience physical, intellectual, emotional and social development holistically. For instance, the development of a child's social skills is dependent upon the development of their intellectual and language skills. One developmental aspect cannot be assessed without looking at the other aspects. Developmental milestones provide a useful guide for professionals and enable them to recognise, monitor and take appropriate action if development is delayed in one or more of the developmental areas.

## Physical development in infancy and early childhood

Two aspects of physical development are **gross motor skills** and **fine motor skills**.

### Development of gross motor skills

Gross motor skills are movements that involve using the large muscles of the body. These skills allow children to control those body movements that require the use of

### Key term

#### Centile lines (percentiles)

– lines on a graph used to show average measurements of height, weight and head circumference. The lines represent the values of the measurements taking into account age and sex.

### Key terms

**Development norms** – a description of an average set of expectations with respect to a young child's development. For example, by the age of 12 months a child has the ability to stand alone.

**Milestone** – an ability achieved by most children by a certain age. It can involve physical, social, emotional, cognitive and communication skills, for example walking, sharing with others, expressing emotions, recognising familiar sounds and talking.

**Gross motor skills** – large movements that involve using the large muscles of the body which are required for mobility, for example rolling over.

**Fine motor skills** – involve smaller movements that require more precise direction (dexterity) and use smaller muscles, for example picking up a pencil.

large muscles in the legs, arms and the torso of the body. As soon as a baby is born, their gross motor skills begin to develop. Gross motor skills are essential for physical play for example playing 'tag', which involves running after friends, catching up with them, reaching out and touching someone. Everyday tasks like walking upstairs, running, jumping and throwing a ball, require the use of gross motor skills.

### Development of fine motor skills

In contrast, fine motor skills are actions that require the use of smaller muscles in the hands, fingers and toes. These allow infants to pick things up using their finger and thumb, wriggle their toes in the sand and hold a crayon or small toy. Dressing and undressing, drawing, scribbling and stacking toys are other examples of fine motor skills.

## Infancy (0–2 years)

### Development milestones

Newborn babies are helpless when it comes to muscle coordination and control. They are unable to hold up their heads, roll over, sit up or use their hands to move objects deliberately. Developing both gross and motor skills allows increasing and more complex movement. By around the age of two, infants develop and use both gross and fine motor skills as they become more independent. For example, when playing with shape-sorting toys, they use gross motor skills to hold their body steady enough to grasp the shapes firmly and use fine motor skills to fit each shape in the correct slot. Table 1.2 shows some developmental milestones for gross and fine motor skills for infants aged from birth to two years.

► **Table 1.2** Gross and fine motor skills developmental milestones in infancy

Age	Gross motor skills	Fine motor skills
Newborn	Primitive reflexes such as grasp.	Holds their thumbs tucked into their hands.
1 month	Lifts chin, some control of head.	Opens hands to grasp a finger.
3 months	Can lift their head and chest when lying on front.	Can briefly grasp a rattle.
6 months	Rolls over, can sit up for a short time without support, kicks legs when held up.	Moves objects from hand to hand, can pick up dropped toys if they are in sight.
9–10 months	Crawls, begins to cruise (walking while holding on to objects).	Uses finger and thumb to hold a small object.
12–13 months	Stands alone, can walk without help.	Manipulates and places toys.
18 months	Climbs onto furniture.	Builds a short tower with blocks.
2 years	Propels a sit-on toy with their feet, throws a large ball.	Draws lines and circles, turns a page.
2 and a half years	Jumps from a low step, kicks a ball.	Uses a spoon and fork, builds a tower of 7–8 blocks.

## Early childhood (3–8 years)

### Development of gross motor skills

Children's practical abilities associated with gross motor skills continue to develop. By the age of three, most children will be able to use pedals to ride a tricycle, run and balance on one foot for one second. By the age of four, children may be able to kick and throw a large ball. At five years, they can hop using each foot separately. By the age of six or seven a child may be able to skip and ride a bicycle. At eight years old they will have good strength and body coordination so that they can take part in many sports and activities.



**Research**

Find more developmental milestones charts and create a table like Table 1.2.

See when most children would be able to:

- run forwards and backwards
- button and unbutton clothing
- write their own name
- use joined-up writing
- walk in a straight line
- turn the pages of a book.

For each of the points above, state whether this is an example of a gross motor skill or a fine motor skill.

**Development of fine motor skills**

Fine motor skills are the ability to control and coordinate smaller movements and muscles such as the movement of hands and fingers. By the age of three, children should be able to control their movements enough to use a pencil to copy letters or build a tower with cubes. By the age of five, most children should be able to dress and undress on their own, including tying their own shoelaces. At eight years of age, they will have good control of their small muscles and be able to draw detailed pictures.

**Adolescence (9–18 years)**

During **adolescence**, males and females will experience a number of physical and growth changes.

**Development of primary and secondary sexual characteristics**

Puberty takes place over several years. It is a period of rapid change and growth and is experienced by both females and males. Table 1.3 shows some primary and secondary sexual characteristics for both sexes. Primary sexual characteristics relate to the changes and development of reproductive organs, while secondary characteristics are outward signs of development from a child into a man or woman.

**Key term**

**Adolescence** – an important status change following the onset of puberty during which a young person develops from a child into an adult.

► **Table 1.3** Primary and secondary sexual characteristics

Primary sexual characteristics (present at birth and develop during puberty)		Secondary sexual characteristics (develop during puberty)	
Female	Male	Female	Male
The uterus enlarges and the vagina lengthens.	Enlargement of penis and testes.	Breasts develop and the areola (the area around the nipple) swells and darkens.	Changes in larynx (Adam's apple) causing voice to deepen.
The ovaries begin to release eggs.	Spontaneous erections caused by blood flowing into chambers in the penis may happen.	Hair grows in armpits and pubic area.	Hair grows in armpits and pubic area, facial hair.
The menstrual cycle commences.	The testicles begin to produce spermatozoa (sperm), beginning of ejaculation.	Redistribution of body fat causing hips to widen.	Redistribution of muscle tissue and fat.

## Key terms

**Puberty** – a period of rapid growth during which young people reach sexual maturity, and become biologically able to reproduce and secondary sexual characteristics develop.

**Hormones** – chemical substances produced in the body and transported in the blood stream that control or regulate body cells or body organs. For example, the sex hormones produced by the ovaries and testes are responsible for the development of secondary sexual characteristics in puberty.

**Puberty** in girls often starts between the ages of 11 and 13 although it may begin earlier. Boys generally start puberty later, often between 13 and 15 years of age. Puberty is a development stage that prepares the body for sexual reproduction. It is triggered by the action of **hormones** that control sexual development. Both boys and girls may experience a 'growth spurt' when they grow taller at a faster rate than before.

### The role of hormones in sexual maturity

Sex hormones are responsible for the changes that occur in puberty. The pituitary gland controls the release of sex hormones in both females and males. The release of sex hormones controls the onset and rate of puberty, the physical changes such as pubic and axillary hair growth and egg and sperm production. It can prove to be a difficult time emotionally for young people as levels of hormones going up or down often cause mood swings.

The main female hormones are oestrogen and progesterone. The ovaries start to produce oestrogen and progesterone which are responsible for changes including ovulation and menstruation. The first period is a significant, notable change for young females as it indicates the onset of fertility.

The main male hormone is testosterone. The testes start to produce testosterone which stimulates sperm production, indicating the onset of fertility. Testosterone is also responsible for the development of secondary sexual characteristics such as a deeper pitch and tone of the voice.

## Case study

### Changes in adolescence

**Jake** is 13 and his parents have noticed that he has suddenly become very shy, locking the bathroom door and asking them to knock before they enter his bedroom. Jake has noticed that his penis has grown (primary sexual characteristic) and he knows that his testes can produce sperm. His mum has noticed that Jake's voice has begun to change and he has hair growing under his armpits (secondary sexual characteristics).

**Sarah** is 12 and she is embarrassed as her periods have started. Her mum has explained to Sarah that her uterus and vagina have grown (primary sexual characteristics). Sarah has noticed that her breasts have grown and her

mum has taken her shopping to buy a bra. Sarah has also noticed that she has armpit and pubic hair. Sarah has grown taller and put on weight (caused by increased fat layers under the skin). These are all secondary sexual characteristics. Sarah is getting anxious about changing for her PE lessons at school as she thinks other girls will laugh at her.

### Check your knowledge

- 1 Thinking about Jake and Sarah, write a definition that explains the difference between primary and secondary sexual characteristics.
- 2 List the female and male sex hormones and write a brief description of their function in puberty.

## Research

Physical development is not controlled purely by genetics. Berryman et al (1991) argue that records show that, in the 1860s, girls did not start puberty until aged 16. It seems that children now start puberty earlier. Consider what environmental influences might have an impact on physical development, for example improvements in diet and increased body weight.



## Early adulthood (19–45 years)

### Physical strength peaks

Young adults are usually at the peak of their physical performance between the ages of 19 and 28. By this age, young adults have reached their full height and strength, and reaction time and manual dexterity are also at their peak. After this age adults may gradually lose some strength and speed, although these changes are often unnoticed outside of competitive sport. Decline in physical capabilities may be exacerbated towards the end of this life stage if individuals have an unhealthy diet, do not take regular exercise and maintain an unhealthy lifestyle.

Exercise and a healthy diet can help to develop physical fitness and athletic skills into middle adulthood.



► What are the physical and psychological benefits of regular exercise in adulthood?

#### Reflect

As an individual moves from adolescence to adulthood, new life experiences and challenges will occur. Do you think that it is easy to identify when adolescence ends and adulthood begins?

### Pregnancy and lactation

Pregnancy and lactation are key phases in an adult female's lifespan. During early pregnancy, women experience many physical and emotional changes in preparation for parenthood. Pregnancy hormones can cause mood swings.

Hormonal changes take place, with an increase in progesterone which maintains the pregnancy, while the increase in oestrogen may be responsible for the sickness some women suffer in early pregnancy. Hormones also affect the shape and appearance of their breasts, including darkened veins due to increased blood supply. Nipples and areolas darken and breasts become more sensitive and tender, preparing the breasts to produce milk (lactation) to feed the baby.

### Perimenopause

By the time a woman is in her forties her ovaries gradually begin to make less oestrogen. This means that the ovaries stop producing an egg each month. This stage is generally referred to as the perimenopause transition. Perimenopause lasts until the **menopause** which is the point when the ovaries stop releasing eggs. On average perimenopause lasts four years. However, this can vary between lasting a few months or as long as 10 years. Perimenopause ends when a woman has not had a monthly period for 12 months. The reduction in oestrogen causes physical and emotional symptoms.

#### Key term

**Menopause** – the ending of female fertility, including the cessation of menstruation and reduction in production of female sex hormones.

Women in perimenopause generally experience some of these symptoms:

- ▶ hot flushes and night sweats
- ▶ breast tenderness
- ▶ loss of libido (lower sex drive)
- ▶ fatigue
- ▶ irregular or very heavy periods
- ▶ vaginal dryness, discomfort during sex
- ▶ mood swings
- ▶ trouble sleeping
- ▶ urine leakage when coughing or sneezing
- ▶ urinary urgency (an urgent need to urinate more frequently).

## Middle adulthood (46-65 years)

### The menopause

Women are most fertile (able to conceive children) in their late teens and early twenties. The risk of miscarriage and pregnancy complications rises with age. Between 45 and 55 years of age fertility reduces and then comes to an end in a process called the menopause. It can take several years to complete.

The menopause involves:

- ▶ gradual ending of menstruation (or stopping having periods) and a large reduction of fertile eggs in the ovaries
- ▶ an increase in the production of hormones called gonadotropins that try to stimulate egg production, which can cause irritability, hot flushes and night sweats
- ▶ a reduction in the sex hormones (oestrogen and progesterone) produced by a woman's ovaries, resulting in some shrinkage of sexual organs and sometimes a reduction in sexual interest
- ▶ associated problems such as osteoporosis, which can be caused by a reduction in the production of sex hormones.

For some women, the general hormonal changes, especially reduction in oestrogen levels experienced during the perimenopause and menopause, can lead to mood changes, depression and anxiety. This can make a woman feel that she is on an emotional roller coaster. Some women experience overwhelming sadness that they are no longer able to have children and this can affect their self-image of being a 'desirable' woman. Self-esteem and self-image can become low, which may impact on self-confidence and on quality of life during this transitional stage of the lifespan.

### Effects of the ageing process

Often adults put on weight as they age. 'Middle aged spread' may happen because adults still eat the same amount of food as they did when they were younger although they have become much less active.

Along with a change in body shape – increased weight and waistline, loss of skin elasticity and loss of muscle tone and strength – people also begin show other signs of ageing, such as greying and thinning of hair and hair loss.



## PAUSE POINT

Close your book and draw an outline of a female body. Note the symptoms of perimenopause around the body.

### Hint

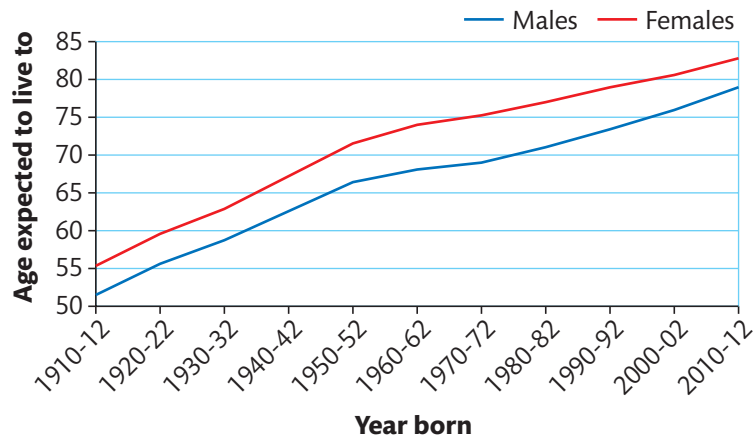
Think about what particular physical functions are changing and possible emotional changes.

### Extend

Conduct a risk assessment of an athlete's training programme – how are they putting themselves at risk?

## Later adulthood (65-plus years)

Predicting your life course becomes more difficult in the later life stages. Where 'old age' was once deemed to be from 65 years of age until the end of one's life, as **life expectancy** has risen, people's ideas of what is 'old' are also changing.



► **Figure 1.2** Changes in life expectancy for males and females over the last 100 years (based on Office for National Statistics data)

In round figures, 120 years is often accepted as the maximum lifespan for a human being. Britain's oldest living person in 2015 was Gladys Hooper from Ryde, Isle of Wight. Mrs Hooper celebrated her 113th birthday in January 2016.

### Deterioration of health

In later adulthood, there are many changes associated with the ageing process. For example, there are changes in body systems and organs which could be the result of disease and that can impact on an individual's lifestyle. Although most body systems continue to function fairly well, the heart becomes more susceptible to disease. Individuals may begin to lose height in middle adulthood which continues into later life. By the age of 80, individuals may have lost as much as 5 cm in height. This is caused by changes in posture and compression of the spinal discs and joints. The ageing process also continues with further loss of strength and muscle loss, as well as a reduction in stamina. Mobility (gross motor skills) and dexterity (fine motor skills) become more difficult. There are small changes to the brain which include loss or shrinkage of nerve cells and a general slowing of movement and responses.

Visual and hearing problems may interfere with daily life. Older people can be more susceptible to accidents and falls due to lack of muscular strength and problems with balance or reaction time.

Older people can retain reasonable health, especially if they follow a lifestyle that includes a healthy diet and exercise. It can be a time when people take up new interests and hobbies that help to keep them physically mobile and their mind active.

### Deterioration of intellectual abilities

Although many older people are in good mental health, major depressive disorders tend to be undiagnosed. Diseases and conditions that can affect health and wellbeing, for example Parkinson's disease and Alzheimer's disease, are more common in older people. As people are now living longer, Alzheimer's disease has become more prevalent. Mild **cognitive impairment** may be an early sign of the disease.

#### Key term

**Life expectancy** – an estimate of the number of years, on average, that a person can expect to live. Sometimes called longevity.

#### Key term

**Cognitive impairment** – when a person has trouble remembering, learning new skills, concentrating or making decisions that affect their everyday life.



# Principles of growth

Growth is sometimes referred to as physiological change. It describes an increase in length or height, weight and dimensions.

## Measuring height



**3** Full height is reached by the start of early adulthood (19 to 45 years).

**1** Infants grow rapidly and will reach roughly half their adult height by the age of two.

**2** Adolescents (9 to 18 years) experience growth spurts (when height increases rapidly over a short period) during puberty.

## The four principles of growth

- 1** Growth rates are not constant.
- 2** Different parts of the body grow at different rates.
- 3** Growth rates vary between children.
- 4** The growth rate of boys is usually faster on average than that of girls, as men tend to be taller than women.

## Length or height?

- In the first two years, an infant's **length** is measured when lying down.
- From 2 years old their **height** is measured when standing.

## Head dimensions

Head circumference is measured at birth and at 6–8 weeks to identify any abnormality in brain or skull growth. Skull growth is faster in the first two years of life but continues into early adulthood.



Head circumference is measured across the forehead, just above the ears and at the midpoint of the back of the head.

## Recording growth

Growth is an indicator of children's health and wellbeing.

Measurements are plotted on a growth chart. Centile lines represent the values of measurement from a large number of children to show 'norms' of growth in each age group.

- Growth charts give the length or height, weight and head dimensions expected at a particular age.
- Comparing children's growth against norms is important to identify signs of ill-health and development problems.
- Growth charts are different for boys and girls as their expected rate of growth varies.

## Now try this

Baby Brad is 8 weeks old. He has been taken to the clinic to check that he is growing at the expected rate. A nurse 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 the nurse will take.

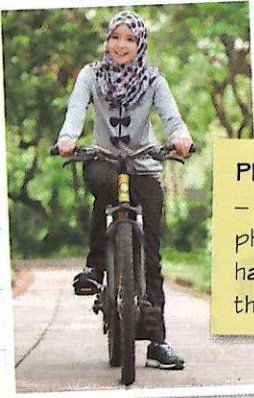


# Principles of development

Development describes the acquisition of skills and abilities through the life stages.

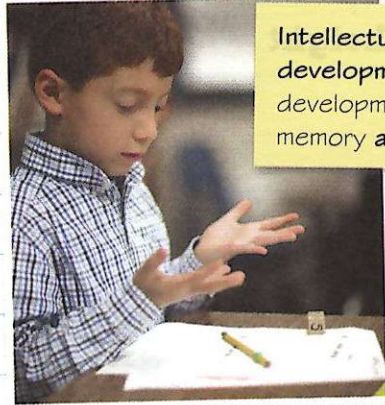
## Areas of development

1



**Physical development**  
– growth and other physical changes that happen to our body throughout life.

2



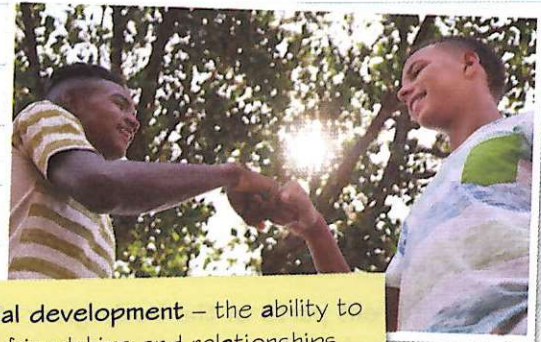
**Intellectual/cognitive development** – the development of language, memory and thinking skills.

3

**Emotional development**  
– the ability to cope with feelings about ourselves and towards others.



4



**Social development** – the ability to form friendships and relationships, and to learn to be independent.

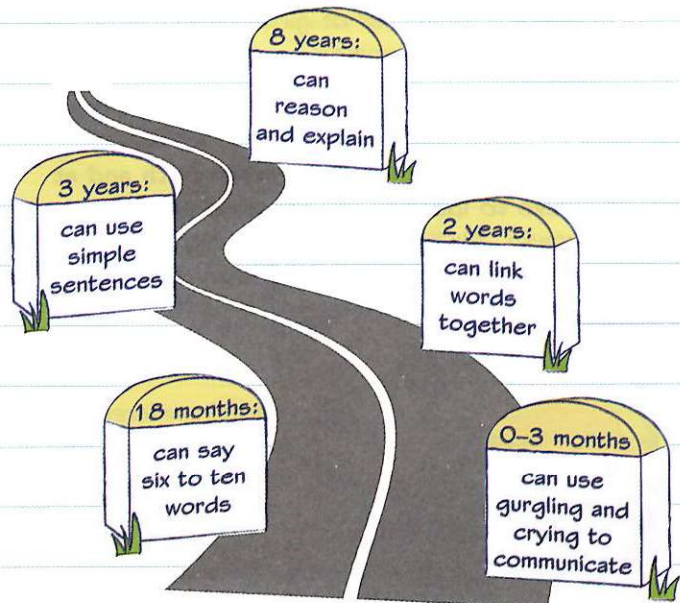
## Development milestones

The rate of development may vary between individuals but it follows the same sequence, with each stage called a milestone (developmental norm). The diagram shows language milestones up to 8 years.

Development is **observed** and cannot be measured in the same way as growth.



**Links** Look at page 3 to revise the sequence of physical development in infants.



## Now try this

Henry is 4 years old and attends nursery. His key person is worried that his development is not progressing as well as expected for his age.

Outline the role of observation in understanding Henry's development.

Observation involves an assessment of children's abilities, learning and behaviour to ensure that children are making expected progress against milestones.



# Gross motor skills, 0–8 years

Gross motor skills allow children to control the large muscles in their torso, arms, legs, hands and feet.

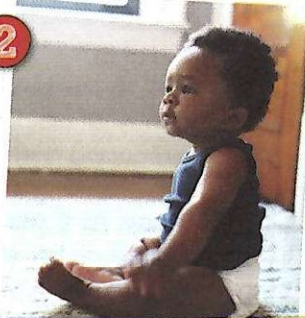
## Infancy, 0–2 years

1



Infants develop their gross motor skills from the head down.

2



Around six months, infants gradually control muscles in their neck and back so they can roll, sit and crawl.

3

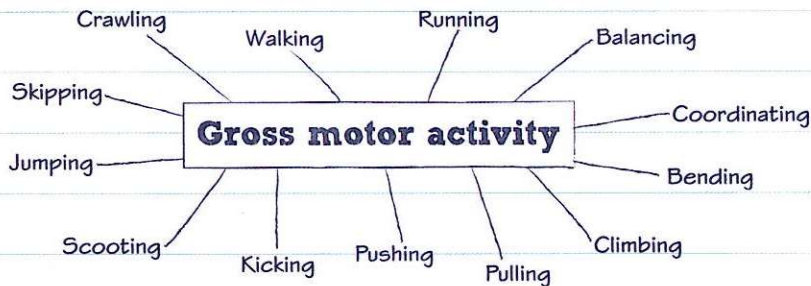


At around 11–13 months, the muscles in their legs develop so that they can stand, cruise and walk.

4

At 2 years, infants can climb onto low furniture and propel a sit-on toy, and at 2½ years they can kick a ball.

## Using gross motor skills



## Early childhood, 3–8 years



From about 3–4 years old they can balance and walk along a line. At about 5–8 years old they can balance on a low beam.

From about 3–4 years old they can run forwards and backwards. At about 5–8 years old they can skip with a rope.

### Children continue to develop gross motor skills



From about 3 years old they can pedal and control a tricycle. By about 6 years old they can ride a bicycle.

From about 3–4 years old they can hop on one foot. At about 5–8 years old they can hop, skip and jump with confidence.

From about 3 years old they can throw a ball and by about 4 years old they can aim it. At about 5–8 years old they can accurately throw and catch a ball.

## Now try this

Bobby is 5 months old. He has just started to roll over to his front from his back.

Identify **two** gross motor skills that Bobby is likely to acquire in the next three months.



# Fine motor skills, 0–8 years

Fine motor skills are important for controlling and coordinating the movement of the small muscles in the fingers and hands.

## How fine motor skills develop

**Newborn**

This newborn is able to grasp an adult's finger. By 3 months he will hold a rattle for a short time and at 6 months he will grasp a toy and pass it to his other hand. At 12 months he will pick up small objects using a pincer grasp.



**18 months**

This 18-month-old can build with small blocks, use a spoon and make marks with crayons using a **palmar grasp**. At 2 years old she will pull on her shoes and control her crayon to draw circles and dots.



### The development of the small muscles in the fingers and hands

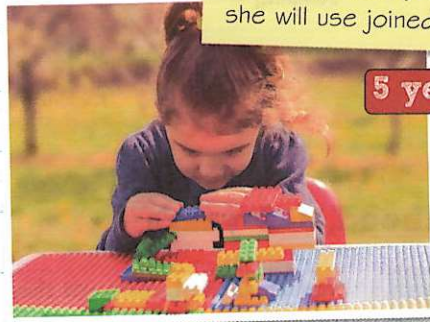
This 5-year-old can control the muscles in her fingers to manipulate the construction block and use hand-eye coordination to fit the piece into the correct place. She writes her own name forming letters correctly and by the time she is 8 she will use joined-up writing.

**3 years**

This 3-year-old is developing a **tripod grasp**. He can use a fork and spoon, turn the pages of a book, and button and unbutton clothing. At 4 years old he will be able to thread small beads and colour in pictures.



**5 years**



## Activities that support fine motor skills

Skill	Description	Activity
<b>Gripping</b>	Having the strength in fingers and hands to hold an object firmly.	Holding a rattle, tricycle handle or spoon.
<b>Manipulation</b>	Skilful movement of objects using fingers and hands, such as turning, twisting and passing objects from one hand to another.	Building with blocks, playing a musical instrument, playing with and placing farm animals or cars.
<b>Hand-eye coordination</b>	Control of eye movement at the same time as finger and hand movement.	Writing, sewing or completing jigsaw puzzles.

### Now try this

Connor is 18 months old. His sister Amy is 3 years old. They are both meeting the expected milestones for their age.

Outline the differences in their fine motor skills.

Ensure that you make links between the children described in the case study and the developmental milestones expected at their age.



# Physical development in adolescence

Adolescence is the life stage between 9 and 18 years old.

## Puberty

During adolescence, young people experience a physical change called puberty. This takes place in girls around 11–13 years and in boys around 13–15 years.

Puberty starts when a hormone in the brain sends a signal to the pituitary gland, which releases hormones that stimulate the ovaries in girls and the testes in boys to produce sex hormones.

During this life stage a young person's height can increase rapidly over a short time – this is known as a growth spurt. In girls this happens around 11–13 years and in boys around 13–15 years.

## The role of hormones in sexual development

### In boys

The hormone **testosterone** is produced by the testes. It stimulates growth of the penis and testes, pubic hair growth, the development of muscle and lowering of the voice.

### In girls

The hormones **oestrogen** and **progesterone** are produced by the ovaries. They stimulate growth of the breasts and reproductive system and helps to regulate the menstrual cycle.

## Primary sexual characteristics

These are the processes that are related to the sex organs that are present at birth and mature when sex hormones are released.

## Secondary sexual characteristics

These are not necessary for reproduction. They develop when sex hormones are released.

### Girls



Menstruation begins

Uterus and vagina grow

Ovulation occurs

Growth of armpit and pubic hair

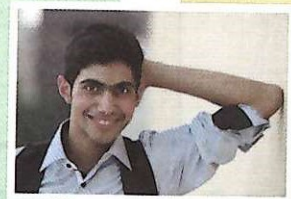
Increased layers of fat under the skin

Breasts enlarge

Growth spurt

Hips widen

### Boys



Penis enlarges

Prostate gland produces secretions

Testes enlarge and produce sperm

Growth of facial hair

Growth of armpit, chest and pubic hair

Increased muscle

Growth spurt

Larynx (voice box) grows, causing the voice to deepen (break)

## Now try this

Explain the difference between primary and secondary sexual characteristics.

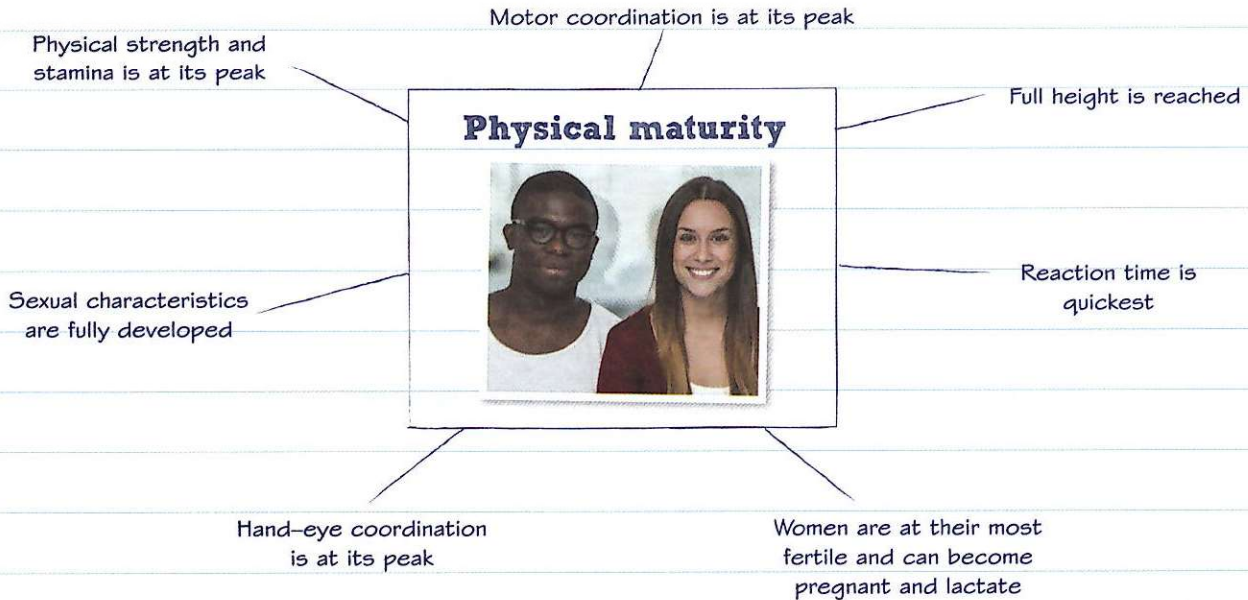


# Physical development in early adulthood

Early adulthood describes the life stage between 19 and 45 years of age.

## Maturation

Individuals reach physical maturity (**maturation**) in early adulthood.



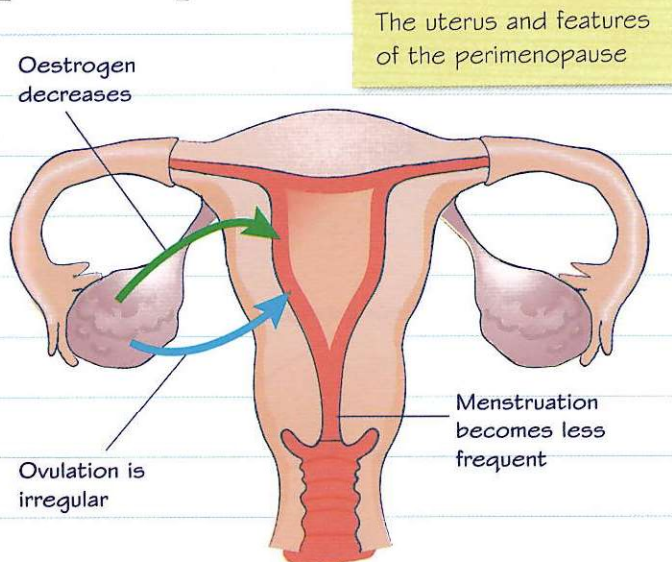
## Fertility and perimenopause

At the beginning of this life stage, women are at their most fertile. Around 40–45 years old they reach the end of their reproductive years. This period is called **perimenopause**.

During menopause, the reduction in oestrogen causes physical and emotional symptoms that include:

- hot flushes
- night sweats
- mood swings
- loss of libido
- vaginal dryness.

## What happens during perimenopause?



## Now try this

Most professional athletes will reach a career peak during the first part of early adulthood.

Explain why their success happens at this time, with reference to their physical stage of development.



Had a look  Nearly there  Nailed it!

# Physical development in middle adulthood

Middle adulthood describes the life stage between 46 and 65 years of age.

## Ageing



The ageing process mainly begins in middle adulthood

Signs of ageing include:

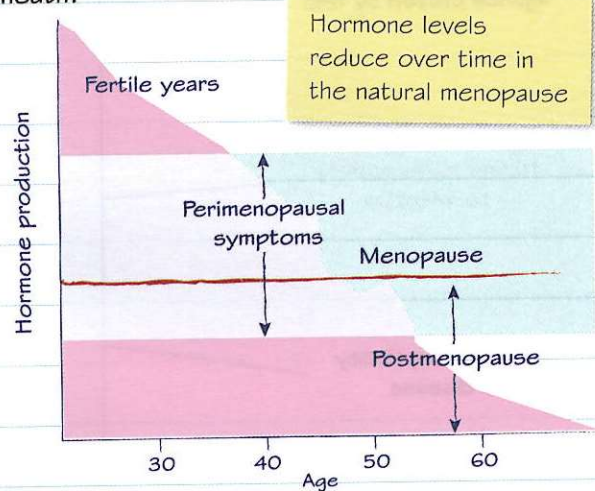
- greying hair
- loss of muscle tone, strength and stamina
- body shape may change with an increase in or loss of weight
- men begin to lose hair
- women are no longer fertile as menstruation ends
- loss of height.

## Menopause

Menopause is a natural physiological change experienced by women during the middle adult life stage. It happens over several years with the gradual ending of menstruation.

## The role of sex hormones in females

- ✓ **Oestrogen** plays the most important role in female sexuality and regulates ovulation.
- ✓ **Progesterone** is necessary for the implantation of fertilised eggs in the uterus, the maintenance of pregnancy and sexual health.



## The symptoms of menopause are the result of hormonal changes

A reduction in oestrogen causes:

- the ovaries to stop producing eggs
- thinning and shrinkage of the vagina.

A reduction in oestrogen and progesterone:

- gradually stops menstruation
- impacts libido.



A reduction in oestrogen:

- affects the hypothalamus in the brain, which regulates temperature, causing hot flushes and night sweats
- affects the health of hair, skin and nails
- may cause mood swings, as oestrogen regulates neurotransmitters that affect mood.

## Now try this

Outline the role of oestrogen in menopause.

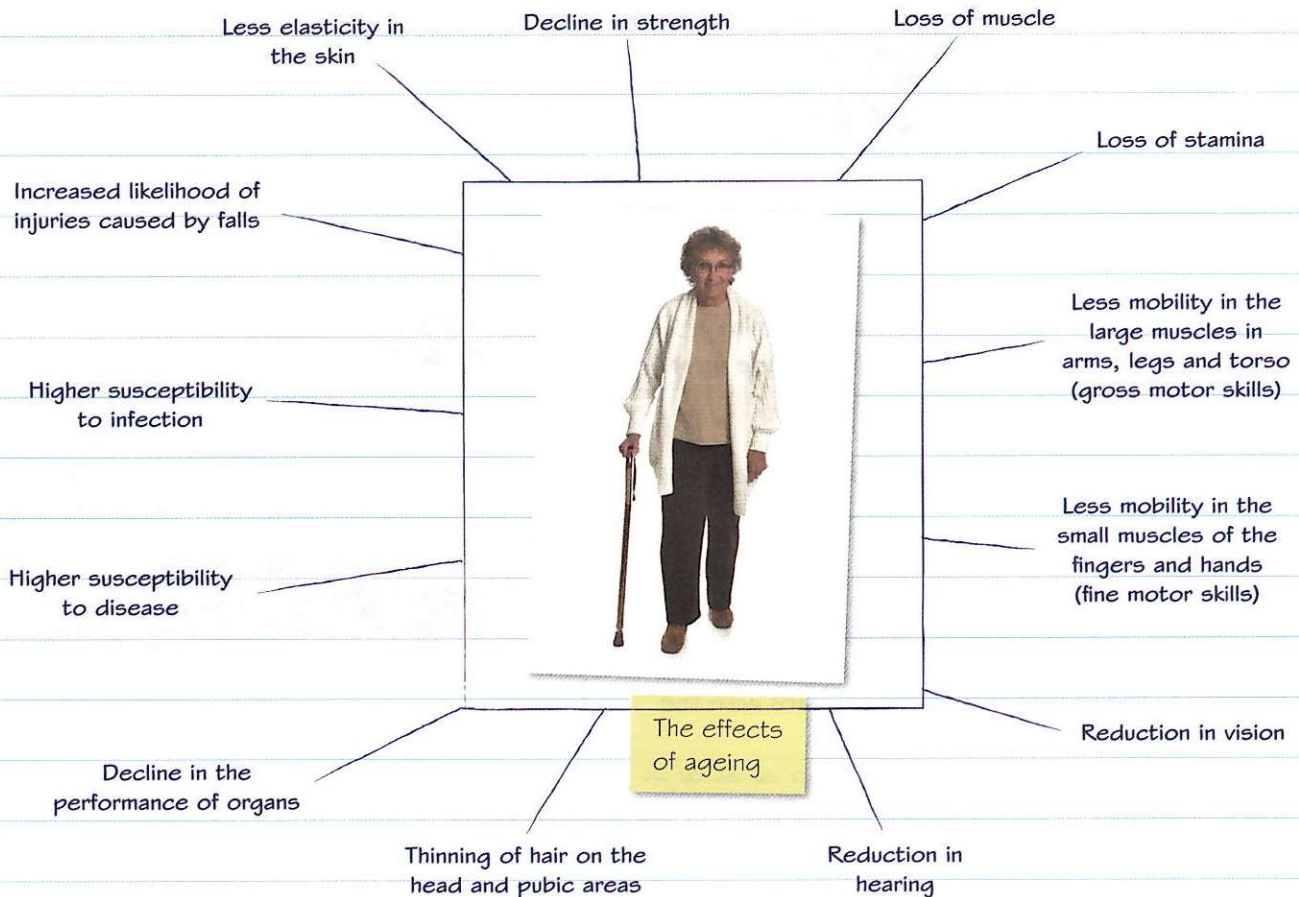


# Physical development in later adulthood

Later adulthood describes the life stage from 65 years old onwards.

## The effects of ageing

The ageing process is the natural deterioration of the body.



### Height loss

It is usual to start to lose height in middle adulthood, which continues into later life. By the age of 80 individuals may have lost as much as 5cm. This is caused by changes in posture and compression of the spinal discs and joints.

### Intellectual ability

Ageing does not always impact on cognitive ability, but it can negatively affect how individuals process information, for example:

- memory
- recall
- speed of thinking.

### Now try this

Peter is 69 years old. He is retired. He used to play football for a local team but now has to watch rather than taking part.

Identify **two** possible effects of Peter's life stage on his physical development.

Make sure you relate your answer to the facts given about Peter so that you identify the physical changes that prevent Peter from taking part in sport.

# GLOSSARY

Complete the table below with definition and draw/add a symbol to represent the term.

Term	Definition	Symbol
Fine Motor Skills		
Growth		
Holistic Approach		
Milestone		
Nature		
Nurture		
Risk Assessment		
Safeguarding		
Self-Concept		
Self-Esteem		



Select 2 jobs from the list below and look at how they have worked during the pandemic.

**Compulsory**

Job Role	Definition	Roles and Responsibilities	Qualities and attributes needed to be successful?
District Nurse			
Auxiliary Nurse			
Palliative Care			
Phlebotomist			
Domiciliary Carer			
Adult Social Worker			



# Health and Social Care in a Pandemic.

At the moment, we are living through a time when health and social care services are needed more than ever! Those who have chosen this as a profession have stepped up to look after those affected by the COVID-19 pandemic. You will be seeing on the news constant stories about the amazing work that is going on in the British NHS and Care system. A number of people have been identified as being particularly at risk from the virus.

From the list below I want you to **investigate 2 of the risk factors** and explain what the factor you have chosen is and how it makes individuals more vulnerable to the pandemic.

**Compulsory**

- **Obesity**
- **Being immune compromised such as undergoing chemotherapy for cancer**
- **Cardiovascular disease**
- **Having respiratory issue such as COPD and asthma**
- **Having neurological problems such as multiple sclerosis or having had a stroke.**



# Fact sheets on Theorists

Suggested  
additional  
SIL

In Unit 1 you will learn about a range of theorists including Piaget and Chomsky and Bowlby. Spend 30 minutes on each theorist and create a spider diagram, fact sheet or page of notes outlining their key ideas.

Piaget – Theory of cognitive development

Chomsky – Theory of language acquisition

Bowlby – Theory of attachment

# Unit 5 Questions

Suggested  
additional  
SIL

Unit 5 Meeting Individual Care and Support Needs. Please answer the questions.

1. What is diversity and why is it important to be aware of diverse needs as a H&SC professional?
  
  
  
  
  
  
  
  
  
  
2. What is equality and how can it be promoted in H&SC services?

### 3. What different types of discrimination are there?


Case notes

## CYNTHIA

**Cynthia is 78 and has been admitted with confusion. She has been treated with urinary tract infection (UTI).**

Prior to admission, she had adhoc visits from friends to provide care.

As well as the UTI there is evidence of acopia (this means that she is unable to look after herself) and she was in a dishevelled state. There was evidence of recent weight loss.

A close-up portrait of an elderly woman with short, wavy white hair and blue eyes. She has a serious expression and is looking slightly to the right of the camera. The background is dark and out of focus.

### 4. How can the service providers looking after Cynthia make sure she doesn't experience discrimination?