


هيكل الصف الثاني عشر

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Activity 2

Disease prevention

List three things that people can do to prevent, or reduce their risk of disease.

1.
2.
3.

You can help to prevent communicable diseases by:

- ⦿ practising good personal hygiene.
- ⦿ cleaning and disinfecting shared areas.
- ⦿ keeping a safe distance from people who are unwell.

What is a disease or illness?

Page 10 - Discussion: What causes disease or illness?

A disease or an illness is a medical condition that stops a person's body from working properly. There are **many reasons why people might develop a disease**. For example, **genetics**, **environmental factors**, or **a person's lifestyle** can all be reasons why they might develop a disease or illness.

The cause of diseases can be split into two categories:

- ⦿ Diseases caused by **bacteria**, **viruses** and **parasites** which enter a person's body and make them ill.
- ⦿ Diseases caused by a person's **lifestyle choices**, the **environment they live in**, or their **family history**.



1. What does a disease or illness do?

.....

.....



What is a disease or illness?

A disease or an illness is a medical condition that stops a person's body from working properly. There are many reasons why people might develop a disease. For example,

- Communicable diseases can be spread from one person to another.
- Non-communicable diseases cannot pass from one person to another.

Communicable diseases are caused by bacteria, viruses and parasites which can be spread from one person to another. They can be spread through contact with an infected person, through contaminated food or drinks, through insect bites or the air.

Non-communicable diseases are usually caused by having an unhealthy lifestyle, living in an unhealthy environment or genetics (family history).

Non-communicable diseases

You cannot get non-communicable diseases from another person. They are usually chronic (long-term) diseases.

Example non-communicable

cardiovascular disease

cancer

respiratory disease

diabetes





Activity 3

Communicable and non-communicable disease



Match the type of disease to the correct description.

Can be passed from one person to another

Non-communicable disease

Cannot be passed from one person to another

Communicable disease

Work in pairs. Using your textbook, name four types of non-communicable disease. Then try to think two more examples that are not in the book.

Examples from the textbook:

1.
2.
3.
4.

Your own examples:

.....

.....

1. Modifiable risk factors

You have control over some risk factors for disease. This means that you can reduce your chances of developing certain diseases. These are known as modifiable risk factors.

2. Non-modifiable risk factors

There are certain risk factors that you cannot change. This is because you have no control over them.

Modifiable
risk factors

can control

Sedentary lifestyle
Overweight
Unhealthy diet
High blood pressure
High cholesterol
Type 2 diabetes
Smoking
Stress

Non-modifiable
risk factors

can't control

Family history
(genetics)
Gender
Ethnicity
Age

STARTER Personal health behaviours

Personal health behaviours are lifestyle habits that can affect a person's health. They can be positive or negative.

Work in groups. In the boxes below, write some positive or negative health behaviours. An example of each has been done for you.

Compare your groups' answers with the rest of your class.

Positive health behaviour	Negative health behaviour
<i>Being physically active</i>	<i>Not getting enough sleep</i>

هذه الإيجابيات و السلبات عكسهم

Positive health behaviours include:

- ⦿ Having a healthy diet and drinking enough water
- ⦿ Getting enough sleep
- ⦿ Having good personal hygiene
- ⦿ Being physically active
- ⦿ Getting regular medical check-ups

Case study 1

Fatima has a sedentary lifestyle. She does not do any exercise. When Fatima visited her doctor, the doctor said she was at risk of heart disease.

A lifestyle change that you would advise Fatima to make:

.....

.....

Case study 2

Sayed likes to eat fast food every day. He has gained a lot of weight. When Sayed visited his doctor, the doctor said that he is obese and is at risk of developing diabetes.

A lifestyle change that you would advise Sayed to make:

Activ
Go to

Look at the list of risk factors. Decide if they are modifiable (M) or non-modifiable (NM). Put a tick in the correct column.

Risk factor	M	NM
Gender (male or female)		
Sedentary lifestyle (lack of exercise)		
Type 2 diabetes		
Age		
Family history (genetics)		
High blood pressure (hypertension)		
Smoking		
Being overweight or obese		
Ethnicity		

A healthy diet not only keeps the body healthy, but it has been shown to benefit mental health too.

From the list below, choose the ways that having a healthy diet might improve mental health. Put a tick in the space provided.

Having a healthy diet could:	
Raise your anxiety levels.	
Improve your mood.	
Make you feel sad.	
Lower your stress levels.	
Make you feel tired.	
Lower the risk of depression.	
Help you think more clearly.	

Circle the foods that you should eat in moderation (in small amounts, or not very often) as eating too much of them is not good for your health.

pizza	yoghurt	cheeseburger
wholegrain rice	fresh fruit juices	fries
milk	biscuits	grilled chicken
fizzy drinks	salmon	water



Activity 11

Healthy diet for disease prevention

Answer the questions below about how a healthy diet can reduce the risk of certain diseases.

1. Identify two diseases that you are more likely to get if you are overweight.

.....

.....

2a. Which mineral helps in maintaining healthy bones?

.....

2b. Name two foods that are a good source of this mineral.

.....

.....

3. What can happen if you have high cholesterol?

.....

From the list below, choose the benefits of physical activity for physical health.

Improved lung function.	
Can control body weight.	
More risk of developing diseases.	
Improved muscular strength.	
Makes people gain weight.	
Reduced risk of certain diseases.	
Improved bone strength.	

Below is a list of benefits of doing physical activity. Decide if they are related to mental and emotional health or social health. Draw an a line from the description to the correct answer.

increased confidence

make new friends

improve your mood

improved energy levels

raised brain function

increased motivation to exercise

learn leadership skills

improved wellbeing

Mental and emotional health

Social health

Choose whether the sentences below are describing a moderate-intensity activity or high-intensity activity.

1. When doing this type of activity, you will be sweating a lot. It will be difficult to talk.

Moderate or high-intensity activity?

2. When doing this type of activity, you will be working at about 70-80% of your maximum heart rate.

Moderate or high-intensity activity?

3. When doing this type of activity, you will be working at about 80-85% of your maximum heart rate.

Moderate or high-intensity activity?

Decide if you think these activities are moderate-intensity (M) or high-intensity (H).

	M or H?
Cycling over 16km per hour	
Gardening	
Walking at about 5km per hour	
Running	
Doing housework	

Fill in the missing parts of the table about screening tests for adults.

For	To screen for	Type of test	Screening frequency
People over 20 years old		Body mass index (BMI) and waist circumference	
People over 20 years old	Hypertension (high blood pressure)		Every 2 years (more if high risk)
	Diabetes High cholesterol	Fasting blood glucose/ lipids test	Every 3 years (more if high risk)
People over 50 years old		Test to find blood in stools OR colonoscopy	
	Cervical cancer	Pap smear test	
Women 50-69 years old	Breast cancer		Every 2 years
	Prostate cancer	Blood test or physical examination	

Match the type of healthcare infection to its description.

Urinary tract infection

An infection in one or both lungs

Bloodstream infection

An infection in the area of an operation

Surgical infection

An infection in the kidneys and bladder

Meningitis

An infection of the brain and spinal cord

Pneumonia

An infection in the blood

List medical professionals and their role in healthcare.

In your own words, explain what a dietitian does.

.....

.....

.....

Where would you find a dietitian?

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.....

.....

Medical professionals, such as a dietitian, will often measure the nutritional status of a patient. They interpret the results to understand the patient's health status and advise them on how to improve their diet and overall nutritional status.

6.2 Anthropometry

Anthropometric measurements

Anthropo means 'human' and *metry* means 'measurement'. Anthropometry, therefore, is the physical measurements of the body. Anthropometric measurements include measuring height and weight. It can also include measuring proportions of the hips, waist, legs, arms and skinfolds. Medical professionals analyse the results to find out the physical status of a person.



Anthropometric measures are particularly useful in children as it can show if they are growing and developing at the correct rate and highlight any problems with their nutritional status.

These measurements will provide a quick indication of malnutrition such as obesity, stunting and wasting.

Waist circumference

Waist circumference is the total distance around the waist. A larger waist circumference shows there is more abdominal fat (fat around the middle of the body).

High levels of abdominal fat are linked with non-communicable diseases such as cardiovascular disease, cancer and diabetes.

Age, gender and ethnicity will affect the measurement.

Waist circumference - Males	Waist circumference - Females	Classification
Less than 94cm	Less than 80cm	Desirable
94-102cm	80-88cm	High risk
More than 102cm	More than 88cm	Very high risk

How to measure waist circumference

Follow these steps to accurately to measure waist circumference.

- ⦿ Place the tape at the mid-point between the top of the hip bone and the lower ribs. It can be measured over thin clothes.
- ⦿ The tape should not be too tight or too loose.
- ⦿ Abdominal muscles should be relaxed.
- ⦿ The measurement should be taken after breathing out.

The table below shows various peoples' waist circumference. Decide if their waist circumference is desirable (D), high risk (HR), or very high risk (VHR). Circle the correct answer.

Name	Waist circumference	Classification
Meera	82cm	D / HR / VHR
Fatima	76cm	D / HR / VHR
Ahmed	98cm	D / HR / VHR
Suhail	105cm	D / HR / VHR

Identify which of the statements below are true about measuring waist circumference.

Take the measurement when breathing in.

The tape should not be too tight or too loose.

Tense the abdominal muscles for the measurement.

The measurement can be taken over clothes.

Waist circumference - Males	Waist circumference - Females	Classification
Less than 94cm	Less than 80cm	Desirable
94-102cm	80-88cm	High risk
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How to measure waist circumference

Follow these steps to accurately to measure waist circumference.

- Ⓐ Place the tape at the mid-point between the top of the hip bone and the lower ribs. It can be measured over thin clothes.
- Ⓑ The tape should not be too tight or too loose.
- Ⓒ Abdominal muscles should be relaxed.
- Ⓓ The measurement should be taken after breathing out.

Body mass index (BMI)

Body mass index (BMI) is a measurement of a person's weight for their height which is used to identify weight status. So, to calculate BMI, you need to know the person's weight and height.

Calculating BMI

BMI is calculated using the following equation:

$$\text{BMI} = \text{weight (kg)} \div \text{height}^2 \text{ (m}^2\text{)}$$



Example

Sara weighs 58kg and her height is 1.61m.

To calculate Sara's BMI, first, we must work out her height².

$$1.61 \times 1.61 = 2.592 \text{ (height}^2\text{)}$$

Then we can calculate her BMI.

$$58 \div 2.592 = 22.4$$

Sara's BMI is 22.4

After calculating BMI, the next step is to understand the results. The BMI number will fall into one of four categories; underweight, normal weight, overweight or obese (there are different classes of obesity).

Match the BMI on the left with the correct classification on the right.

BMI	BMI classification
30+	Overweight
18.5-24.9	Obese
<18.5	Underweight
25-29.9	Normal

Underweight

A BMI result lower than 18.5 is a sign that the person is underweight. In this case, the person should speak to a healthcare professional about gaining weight in a healthy way.

Healthy weight

A BMI between 18.5 and 24.9 is a sign that the person is a healthy weight. They should aim to maintain this weight by eating a healthy, balanced diet.

Overweight

A BMI result between 25 and 29.9 is a sign that the person is overweight. They should consider talking to a healthcare professional about losing some weight in a healthy way.

Obese

There are different levels of obesity, but any BMI above 30 is classed as being obese. A person with a BMI of more than 30 should seek professional help as they need to reduce their weight.

Circle the methods of measuring body fat.

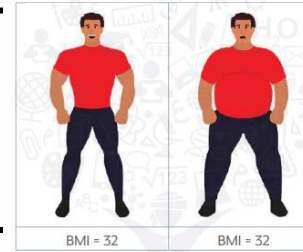
Bioelectrical impedance	Weighing scales	Tape measure
BMI	DEXA scanner	Skinfold thickness

Another method for calculating body fat is to measure **skinfold thickness**. Skinfolds are areas of skin that can fold when pinched. Skinfolds are measured using a tool called callipers which grip the fat through the skin and can be used at different parts of the body.



Body fat percentage

Sometimes it is useful to use BMI with body fat percentage to assess health. A person could be overweight or obese according to their BMI, but their body fat percentage could be quite low. This happens a lot with sports players and athletes who have a lot of muscle.



Bioelectrical impedance analysis (BIA) is another method of measuring body fat. It sends a weak electrical current through the body. The person does not feel the electrical current. The machine can tell when the electrical current is travelling through fat as opposed to muscle.

Everyone has fat on their body. We need fat to protect our organs, provide energy, and help our bodies stay warm. Too much fat on the body can increase the risk of developing non-communicable diseases such as heart disease and cancer.

Measuring body fat

Before you can calculate body fat percentage, you must first measure the amount of fat on the body.

The most accurate way to measure body fat is by using a **DEXA scanner**. This is an X-ray that shows an exact breakdown of fat mass, bone density and muscle mass.



HSC.4.4.01.009 Calculate and analyse simple nutritional indices such as body mass index (BMI) and body fat percentage.

Write the formula that is used to calculate body fat percentage.

What other piece of information do you need from a person in order to interpret their body fat percentage?

.....

.....

Calculate the body fat percentage of each person below. Then write the colour group they fit into based on your answer. An example has been done for you.

Khalifa
Body fat: 28kg TBW: 87kg Age: 38 years
 $28 \text{ (body fat)} \div 87 \text{ (TBW)} \times 100 = 32\% \text{ (body fat percentage)}$
Colour group: Red

1. Mansoor
Body fat: 12kg TBW: 84kg Age: 25 years

.....

.....

Colour group

2. Mouza
Body fat: 18kg TBW: 75kg Age: 58 years

.....

.....

Colour group

3. Amal
Body fat: 29kg TBW: 72kg Age: 67 years

.....

.....

Colour group



Example

Hamad's body fat is 30kg and his TBW (total body weight) is 100kg. He is 30 years old.

$$30 \div 100 = 0.3$$

$$0.3 \times 100 = 30\%$$

Hamad's body fat percentage is 30%.

Maha's body fat is 14kg and her total body weight (TBW) is 58kg. She is 22 years old.

$$14 \div 58 = 0.24$$

$$0.24 \times 100 = 24\%$$

Maha's body fat percentage is 24%.

Calculating body fat percentage

After you have measured body fat, you can then calculate the body fat percentage. You need three things for this:

- ⊙ Total body weight (TBW) in kilograms (kg)
- ⊙ Body fat in kilograms (kg)
- ⊙ Age

The formula for calculating body fat percentage:

$$\frac{\text{Body fat}}{\text{TBW}} \times 100$$

6.5 Clinical methods



Clinical methods

The letter C in ABCDE stands for clinical methods of nutritional assessment.

Clinical methods are a physical examination. Medical professionals look for physical clues of nutrition-related health problems on the body. These clues may be seen or felt in different parts of the body. Tissues of the body that can show nutrient deficiencies include the following:



- Skin
- Eyes
- Gums
- Hair
- Nails
- Mouth

33-what body tissues may show signs of nutrient deficiency?

Skin-eyes-gums-hair-nails-mouth. (page 72)

34-hair that can be pulled out easily could suggest a person is low in what nutrients?

Protein-iron -vitamin D. (page 72)



List at least six environmental factors that can impact nutritional status.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....



Boys

unit 7

For thousands of years, people have used fire for many reasons, including the following:

- ⦿ Cooking
- ⦿ Warmth
- ⦿ Light
- ⦿ Engineering
- ⦿ Manufacturing
- ⦿ Powering vehicles

15-what is fire?

It is a chemical reaction that produces bright light, heat and smoke. (page 88)

16-what do humans use fire for?

Cooking-warmth-light-engineering-manufacturing-powering vehicles. (page 88)

17-what damage can an out of control fire cause?

Damage to buildings, nature and humans. (page 88)

18-how can a fire be harmful to humans?

When fire comes into contact with skin, it can burn or cause blisters, if the fire is big enough, it can cause death. (page 88)



Activity 5

Know the rules

Look at the statements below. Circle the ones that are part of the evacuation safety rules.

If there is smoke 'get low and get out'	Help others where needed	If there is smoke 'get low and stay there'
Use the elevators, they are quicker	Run for an exit	Do not run
Do what you want	Do as you are instructed	Don't use elevators

3. Do not run.

Leave the area quickly but in a calm and controlled manner. Walk quickly, but do not run. Running will cause other people to panic and run also. Actions like this cause crushes to happen at exit points.



4. If there is smoke 'get low and get out'.

If smoke is present, move below the smoke where the air is cleaner and safer to breathe. Look at the picture of the fireman crawling. This is the 'get low and get out' technique.



5. Do as you are instructed.

Stay at the assembly point until you are told to leave. If you leave before being instructed to, the authorities may think you are still inside. People could get injured or killed trying to save you when they don't need to.



Evacuating a building safely

During an emergency, it is important that people leave a building quickly but safely so that they don't put themselves in more danger. There are some rules that you, and others, can follow that will ensure that everyone makes it to the assembly point safely.

1. Don't use elevators.

Use the stairs instead. Larger buildings will usually have at least one fire exit on every floor. When in school or any large building, have a clear idea of where the nearest fire exit is to your location.



2. Help others where needed.

Older people and people with disabilities may need help. Be aware of this and help where you can if it is safe to do so. If you have a disability, make sure someone will help you during an emergency.



How to use a fire extinguisher

Firstly, check you have the right extinguisher and that the pressure is correct (the needle should be in the green area on the gauge). Remove the tamper seal and remember 'PASS' for what to do next.

P	<p style="text-align: center;">Pull the pin</p> <p>This will allow you to use the extinguisher.</p>
A	<p style="text-align: center;">Aim at the base</p> <p>Do not aim at the flames; you must extinguish the fuel at the bottom of the fire.</p>
S	<p style="text-align: center;">Squeeze the handle</p> <p>This will release the contents.</p>
S	<p style="text-align: center;">Sweep from side to side</p> <p>Move the fire extinguisher from side to side. Do this until the fire is completely out.</p>



 WOOD, PAPER, FABRICS, ETC.	✓	✓	✗	✓
 FLAMMABLE LIQUIDS	✗	✓	✓	✓
 FLAMMABLE GAS	✗	✓	✗	✗
 ELECTRICAL	✗	✓	✓	✗
 COOKING OIL, FATS	✗	✗	✗	✗

Refuse fire (solid)

Rubbish or trash in bins is good fuel for a fire. Paper, plastic and wood are all flammable materials. Most bins have these materials inside.



How to deal with this fire

If the bin has a lid, and it is safe to do so, close it which will cut off the oxygen to the fire. Or use water, foam or dry powder to extinguish the fire. Aim at the base of the fire, not the flames. If the fire gets out of control, call the Civil Defence.

Electrical fire

This is a fire caused by misusing electricity. An example of this is putting too many plugs into a single socket and overloading it.



How to deal with this fire

If it is possible to remove the plug safely, then do so. If not, find the fuse box and switch off the main power. Then extinguish the fire using dry powder or CO₂. If the fire becomes too large, get out of the building and call the Civil Defence.

Oils and fats

At home, this is a fire normally caused by overheating oil when cooking. When oil gets too hot, it can catch fire on its own (without a spark).



How to deal with this fire

If it is possible to turn the cooker off safely, then do so. Try to cover the pan with the correct lid or use a fire blanket. Do not move the pan as the contents could spill and burn you. If the fire gets out of control, get out of the building and call the Civil Defence.

Watch the video on how to use a fire extinguisher. During the video you will see the letters PASS being used to describe the steps to take when using a fire extinguisher. What are the four steps? Write the steps in order in the table below.

Aim at the base	Squeeze the handle
Sweep from side to side	Pull the pin

1	
2	
3	
4	

P	<p>Pull the pin</p> <p>This will allow you to use the extinguisher.</p>
A	<p>Aim at the base</p> <p>Do not aim at the flames; you must extinguish the fuel at the bottom of the fire.</p>
S	<p>Squeeze the handle</p> <p>This will release the contents.</p>
S	<p>Sweep from side to side</p> <p>Move the fire extinguisher from side to side. Do this until the fire is completely out.</p>

To make a safe lane change while you are driving, follow these three steps:

1. Mirror

Check your mirror and blind spots.

2. Signal

Always make a signal when you are going to change lanes.

3. Move

When it is safe to do so, change lanes.



Activity 22

How to practise safe driving

Choose four things that can help you, your passengers, and other **road users** stay safe when you are driving.

Be aware of weather conditions that can affect driving.	
Drive as close as you can to the car in front.	
Change lanes quickly, without using your indicator.	
Leave a safe distance between your car and the car in front.	
If it starts to rain, drive faster to get home quickly.	
Use your mirrors and indicator when changing lanes.	
Try to drive at the maximum speed limit.	

When driving in heavy rain or fog, you should:

Slow down. Driving at normal speeds is dangerous as you cannot see what is in front of you.

Turn on your lights. Use your headlights or fog lights so that other road users can see your car.

Leave space. Leave extra space between you and the car in front of you.

Stop. If you feel that it is not safe to continue, pull over and stop driving as soon as you can. Find a gas station or restaurant and wait until the weather improves.

Things to remember when practising safe driving

There are many other things that can be done to make driving safe for you and other road users.

You should:

- ⦿ Avoid driving aggressively, be patient with other road users.
- ⦿ Do not use your mobile phone while driving, wait until you stop.
- ⦿ Plan your journey and leave enough time so you don't need to drive too fast.
- ⦿ Be aware of motorbikes and cyclists on the roads.
- ⦿ Make sure that your car is well maintained and check your tyre pressures regularly.

According to government statistics, the top 7 causes of road accidents in the UAE are:

1. Sudden swerving/lane changing

This is the top cause of accidents in the UAE. It happens when a car moves into another lane without making a signal or checking that the lane is clear.

2. Driving without keeping a safe distance (tailgating)

Tailgating is when a car is driving too close to the car in front. If a car is following another too closely, there is not enough time to stop if the driver in front brakes suddenly.

3. Dangerous driving

There are many types of driving that this covers, for example speeding, running red lights, cutting people off or passing illegally.

4. Entering a road without checking that it is clear

This can include joining the highway without checking for traffic, or turning into a street when there are other cars coming.

5. Lack of attention or judgement

This can include using a mobile phone or being distracted while driving.

6. Not following the road lanes

This means driving between two lanes or driving on the wrong side of the road.

7. Reversing in a dangerous way

Reversing without checking what is behind the car.



Activity 13

The causes of UAE road accidents

Put the following causes of road accidents in the UAE into the correct order with 1 being the cause of most accidents. Number 1 and 7 have been done for you.

Dangerous driving	
Lack of attention or judgement	
Reversing in a dangerous way	7
Not following the road lines	
Driving without keeping a safe distance	
Sudden swerving/lane changing	1
Entering a road without checking that it is clear	

Seat belts

In 2017, the UAE Ministry of Interior announced seat belt laws to protect car drivers and their passengers.

The laws state that:

- ⦿ everyone travelling in the car must wear a seatbelt, regardless of their age and whether they are travelling in the front or the back of the car.
- ⦿ children under 10 years of age are not allowed to sit in the front seat of a car.
- ⦿ car seats must be used for children under 10.



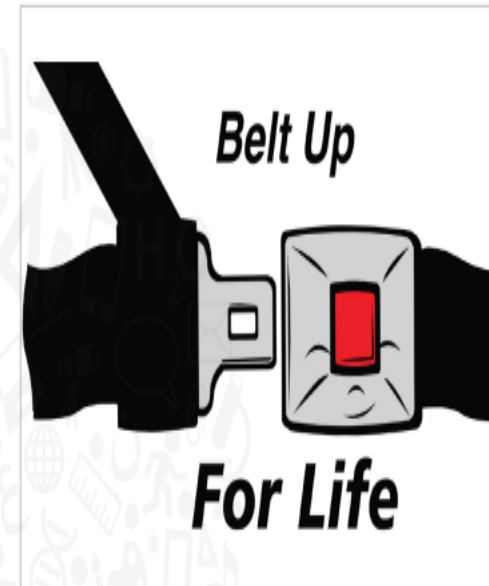
The car driver is responsible for making sure that these rules are followed. There are fines of AED 400 and 4 black licence points for failing to observe the laws.

Seat belts

Seat belts are designed to keep people in their seats during a crash. If people do not wear a seat belt, they might hit the steering wheel, dashboard or even go through the windscreen. This could cause serious injury or death.

Modern testing has found that wearing seat belts reduces the risk of injury during a crash by up to 63%. It also found that it reduces deaths by 50%.

In a crash, a backseat passenger who is not wearing a seat belt can be thrown forward with enough force to kill the person in front of them.



Rear-facing car seat

- ⦿ Infants up to 2 years of age.
- ⦿ Should be fitted in the back of the car.
- ⦿ Never fitted in the front.



Front-facing car seat

- ⦿ 2 years and above, up to 125cm.
- ⦿ Should be fitted in the back of the car.
- ⦿ Never fitted in the front.



Booster seats

- ⦿ Children between 125cm and 145cm.
- ⦿ Should be fitted in the back of the car.
- ⦿ Never fitted in the front.



Normal seat belts

- ⦿ Children at least 145cm tall.
- ⦿ 10-year olds can travel in the front.





Activity 19

Matching

Match the type of car seat/seat belt to the description.

For age 2 and above, up to 125cm

For children between 125cm and 145cm tall

For infants up to 2 years

For children at least 145cm tall

Seat belt

Rear-facing car seat

Front-facing car seat

Booster seat



Activity 20

UAE laws on seat belts

Answer the following questions about the UAE laws on wearing seat belts by selecting yes or no.

	Yes	No
Does a 25 -year-old man travelling in the back seat of a car need to wear a seatbelt?		
Can a 10-year-old boy sit in the front seat of a car?		
Does the driver of a car always need to wear a seatbelt?		
Can a 9-year-old girl sit in the front seat of a car?		
Is the fine for not wearing a seatbelt AED 200?		
Do car seats need to be used for children under the age of 10?		

Girls

Unit 7

How long does pregnancy last?

.....

.....

.....

What do you think a woman should eat during pregnancy?

.....

.....

.....

Do you think a woman should exercise during pregnancy?

.....

.....

.....

What should a baby eat when it is born?

.....

Pregnancy, also known as gestation, is the time when a woman carries her developing embryo/foetus in her womb. The foetus is the name given to the unborn baby that is still developing in the womb. Pregnancy can be categorised into three stages which are called trimesters. Pregnancy usually lasts 40-42 weeks.

Trimester 2

During the second trimester, the following changes happen to the foetus:

- ⊙ The foetus begins to make urine.
- ⊙ They develop meconium. This is the first bowel movement.
- ⊙ The gender will become apparent.
- ⊙ The musculoskeletal system is developing, and the bones begin to harden.
- ⊙ The skin is translucent (almost see-through).
- ⊙ The foetus can suck their thumb, and their fingerprints form.
- ⊙ By the end of this trimester, they are gaining some body fat.

The second trimester is one where a lot of women start to feel well. Morning sickness eases off, and the growth of the foetus is noticed as the bump gets larger. The mother can feel the foetus moving.

The following changes happen during the first trimester:

- ⊙ Early in the pregnancy, the nervous system (brain and spinal cord) begins to develop.
- ⊙ The umbilical cord forms.
- ⊙ The heart, eyes, ears, mouth, nose, hands and feet take shape.
- ⊙ By the end of the first trimester, the organs have formed and are developing.

Trimester 3

This is the final stage of pregnancy before childbirth. As the foetus gets bigger, it can become uncomfortable for the mother. The frequency of urination increases as there is more pressure against the organs. It might be more difficult for her to sleep.

By this stage, the foetus' bones are fully formed, and the eyes can open and close. At 37 weeks, they are classed as full-term. At this stage, the organs are functioning.

Near to the end of the third trimester, the woman's body will prepare for childbirth. The foetus will turn and be in position for childbirth towards the end of the pregnancy. Most women go into labour and give birth between 40 and 42 weeks of pregnancy.



Activity 1

Trimesters

Put the physical changes of the foetus into the correct trimester.

Gender is apparent	Full-term	Organs form
Eyes can open and close	Foetus develops	Foetus is in position for childbirth
Umbilical cord forms	Fingerprints form	Bones begin to harden
Trimester 1	Trimester 2	Trimester 3

Activity 3 **Changes in each trimester**

A woman experiences physical changes during each trimester. Match the changes described on the left to the correct trimester.

Difficulty sleeping	Trimester 1
Morning sickness	Trimester 2
Mother can feel the foetus moving	Trimester 3
Fatigue	
The mother starts to feel well	

Benefits of physical activity during pregnancy

Taking part in regular physical activity during pregnancy can:

- ⦿ improve self-esteem and mood.
- ⦿ help a woman to gain only a healthy amount of weight during pregnancy.
- ⦿ help to improve energy levels.
- ⦿ help to reduce stress and anxiety.
- ⦿ help to maintain cardiovascular and muscular fitness. This helps to prepare the mother's body for childbirth.
- ⦿ reduce the risk of developing gestational diabetes; a form of diabetes that only develops during pregnancy.
- ⦿ help the woman to recover faster and remain healthy after giving birth.

Recommended exercises during pregnancy

The most recommended exercises to do when pregnant are ones which increase blood circulation and tone the body. For example:

- ⦿ Walking
- ⦿ Swimming
- ⦿ Low impact aerobics (with a qualified instructor)

Pelvic floor exercises which strengthen the muscles of the pelvis are also recommended as they can help during labour and after the birth of the baby.

When to stop physical activity during pregnancy

It is important to recognise when a woman should stop exercising during pregnancy. Women should stop exercising if there is a risk to her or to the foetus.

Some signs that could mean that the foetus or mother is in danger include:

- ⦿ Bleeding or fluid loss
- ⦿ Chest pain
- ⦿ Decreased movement from the foetus
- ⦿ Dizziness
- ⦿ Difficulty breathing before exercise
- ⦿ Muscle weakness
- ⦿ Pain around the stomach or pelvis
- ⦿ Pre-term labour or contractions
- ⦿ An irregular heartbeat



Exercises to avoid during pregnancy

While many exercises are safe to do during pregnancy, there are some that should be avoided. For example:

- ⦿ Pregnant woman should not lie flat on their back for long periods of time, particularly after 16 weeks, as she might feel faint or dizzy.
- ⦿ It is not recommended to take part in contact sports where there's a risk of being hit, such as kickboxing or judo.
- ⦿ Sports where there is a risk of the woman falling such as horse-riding or rock climbing should be avoided.

Read the following statements about physical activity during pregnancy. Write 'A' if you agree and 'D' if you disagree with the statements below.

Taking part in regular physical activity when pregnant has many health benefits.

If a pregnant woman has fluid loss when exercising, she should stop exercising and get medical attention.

If a pregnant woman feels contractions during exercise, she should finish her workout as planned before getting medical attention.

A woman should do physical activity while pregnant to lose weight.

Doing physical activity during pregnancy can help to maintain cardiovascular and muscular fitness.

If a woman is feeling very tired, she could try to do some physical activity. It helps to improve energy levels.

A woman should push herself to run as fast as she can when pregnant.

Physical activity during pregnancy can help improve a woman's self-esteem and mood.

Postnatal depression


Postnatal depression is a type of depression that a lot of women experience after giving birth. Although the 'baby blues' only last a few weeks and usually go away on their own, postnatal depression will last longer and individuals need some support to manage it.



Many women do not realise they have postnatal depression as symptoms can develop gradually. It is important that someone who has postnatal depression gets help, as symptoms could last longer or get worse without support.

Symptoms include:

- ⊙ Difficulty bonding with the baby
- ⊙ Worrying about not being a good mother
- ⊙ Struggling to eat, sleep or properly take care of the baby
- ⊙ Low mood
- ⊙ Feeling sad, worthless and hopeless
- ⊙ Difficulty sleeping
- ⊙ Problems with concentration or making decisions
- ⊙ Lack of energy
- ⊙ Avoiding seeing or speaking to friends and family
- ⊙ Loss of interest in things

 **Activity 25** **The differences**

Complete the table below to show the difference between the 'baby blues' and postnatal depression. Include how long it lasts and the signs and symptoms.

'Baby blues'	Postnatal depression

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