حل كامل الوحدة السادسة Status Nutritional Assessment من كتاب النشاط

تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف الثاني عشر ⇦ علوم صحية ⇦ الفصل الثاني ⇦ ملفات متنوعة ⇦ الملف

تاريخ إضافة الملف على موقع المناهج: 13-02-2026 13:20:06

المزيد من مادة علوم صحية:	ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

التواصل الاجتماعي بحسب الصف الثاني عشر

صفحة المناهج الإماراتية على فيسبوك					
المواد على تلغرام	التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات	

المزيد من الملفات بحسب الصف الثاني عشر والمادة علوم صحية في الفصل الثاني

1	حل كامل الوحدة الخامسة Prevention Disease من كتاب النشاط
2	مراجعة جميع الوحدات اختبار من متعدد - أولاد
3	مراجعة جميع الوحدات اختيار من متعدد - بنات
4	أسئلة اختبارية نهاية الفصل المسار المتقدم
5	أسئلة اختبارية نهاية الفصل المسار العام

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6.1 The importance of nutritional assessme

STARTER Word search

Find the keywords listed below.

Y	N	D	M	Z	E	H	V	X	Z	Q	C	N	A	X
L	R	U	Z	Z	K	G	X	D	A	I	L	O	J	G
S	N	T	T	D	B	C	V	Y	D	S	I	I	C	L
S	W	O	E	R	K	V	O	I	P	L	N	T	J	B
X	S	N	H	M	I	M	E	N	A	X	I	I	X	K
M	Z	E	H	Y	O	T	I	C	Y	X	C	R	S	Q
O	K	G	C	F	A	P	I	T	V	U	A	T	D	H
L	M	P	R	R	G	M	O	O	Q	R	L	U	Y	Z
T	M	C	Y	Y	E	V	R	R	N	N	Z	N	C	C
Z	W	B	T	H	T	V	U	Z	H	Y	L	L	J	C
I	R	U	C	S	A	E	V	C	R	T	Z	A	J	C
Z	C	O	X	U	F	X	J	Z	B	F	N	M	B	J
Y	I	A	S	S	E	S	S	M	E	N	T	A	Z	Y
B	S	U	T	A	T	S	N	F	B	F	P	Z	J	X
T	U	E	D	K	Y	P	G	E	W	P	G	K	Q	Y

ANTHROPOMETRY	ASSESSMENT	BIOCHEMICAL	CLINICAL
DIETARY	MALNUTRITION	NUTRITION	STATUS

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Activity 1

Dietitians

In your own words, explain what a dietitian does.

A dietitian is a healthcare ~~proffes~~ professional who specializes in food and nutrition. they assess individuals" dietary needs, develop personalized nutrition plans and provide guidance about healthy food choices

Where would you find a dietitian?

Hospitals and clinics

Schools and universities

Food Industry

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6.1 The importance of nutritional assessmen

Activity 2 Malnutrition and undernutrition

Write your own definition of malnutrition and undernutrition.

Malnutrition	An imbalance between the body's nutritional needs and the intake of nutrients. This includes both (undernutrition & overnutrition)
Undernutrition	A form of Malnutrition where the intake of energy and nutrients is insufficient for the body's needs. results in → (weight loss, stanting, Wasting, Micronatrient deficiencies

Activity 3 Types of undernutrition

Read the descriptions below and decide which type of undernutrition they are describing.

Someone who is not getting enough of certain vitamins or minerals	Micronatrient deficiencies
Someone who is a low weight for their height	Wasting
A child who is a low height for their age	Stunting
A child who is a low weight for their age	Underweight

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Activity 4

The purpose of nutritional assessment

Identify at least three reasons why nutritional assessment is important.

*Detect individuals who are Malnourished or at the risk of Malnutrition
*Identify issues or diseases
*Develop appropriate healthcare interventions and nutrition programs

Activity 5

Methods of assessing nutritional status

Identify the ABCDE methods for assessing nutritional status.

Anthropometry

Biochemical Methods

Clinical Methods

Dietary Assessment

Enviromental Factors

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Activity 6

Waist circumference

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

Activity 7

Measuring waist circumference

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

Take the measurement when breathing in. x

The tape should not be too tight or too loose.

Relax
x Tense the abdominal muscles for the measurement.

The measurement can be taken over clothes.

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6.2 Anthropometry

Activity 8 My waist circumference

Try measuring your own waist circumference.

Check which classification you are in.

My waist circumference is ...83 cm.....

I belong to the category: (tick your answer.)

Desirable	High risk	Very high risk
✓		

Activity 9 My weight

Try measuring your weight. Remember to take heavy items out of your pockets.

My weight is, "64 kg"

Activity 10 My height

Try measuring your own height. Remember all the steps that you need to take in order to measure your height correctly.

My height is, "183 cm"

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Activity 11

Measuring height

The following images show doctors measuring the height of patients. What is incorrect in each of the images?

*The patient is wearing his shoes

.....

.....

.....

*The patient back is not touching the measure

*The patient isn't looking straight ahead

*The patient back is not touching the measure

*The patient isn't looking straight

.....

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6.2 Anthropometry

Activity 12 Growth charts

Using the WHO growth charts provided in your textbook, identify the correct percentile for each of the following people.

Age	Height	Gender	Percentile
11 years 9 months	150cm	Boy	50th - 85th
6 years 6 months	109cm	Girl	3rd
15 years 3 months	175cm	Girl	85th - 97th
17 years 9 months	168cm	Boy	15th
10 years	150cm	Boy	97th

Activity 13 Plotting my height

Using the WHO growth charts provided, plot where you are on the growth chart.

My gender	My age (in years and months)	My height (in centimetres)
Male	17 years, 8 months	183 cm

Which percentile do you belong to on the growth chart?

The 85th percentile

What does this mean?

$\left(\frac{183-176}{176}\right) \times 100 \approx 4\%$ I'm taller than the 50th percentile by 4%

6.3 Body mass index (BMI) and body fat percentage

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STARTER What do you already know?

What can you remember about BMI, what does it mean?

BMI (Body mass index) is a measure of a person's weight in relation to their height. It is used to determine wether a person is (underweight, normal weight, over weight or obese).
It does not differentiate between both fat and Muscle Masses

Which of the following are needed to calculate BMI? Tick the correct answers.

	Age
	Gender
✓	Weight
✓	Height

What is body fat percentage used for?

Body fat percentage is used to assess a person's body composition, indicating the proportion of fat mass in relation to total body weight.
It helps detrmine if a person has a healthy amount of fat or not.

Which of the following are needed to calculate body fat percentage? Tick the correct answers.

✓	Total body fat
	Waist circumference
✓	Total body weight
✓	Age

Activity 14 BMI formula

Write the formula that is used to calculate BMI. Don't forget to include the units.

Mass

BMI = Weight (kg) ÷ (Height)^2 (m^2)

Body Index

Activity 15 BMI ranges

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

6.3 Body mass index (BMI) and body fat percentage

Activity 16

Calculate BMI

Calculate each person's BMI and decide their BMI classification.
An example has been done for you.

Hind

Height: 1.62m Weight: 68kg

1.62 x 1.62 = 2.62 (height^2) 68 (weight) ÷ 2.62 (height^2) = 26 (BMI)

BMI = 26 BMI classification: Overweight

1. Shouq

Height 1.58m Weight 60kg

BMI = $\frac{60\ kg}{1.58^2\ m^2}$ = 24.035

BMI classification ...Normal...

2. Mohammed

Height 1.79m Weight 55kg

BMI = $\frac{55\ kg}{1.79^2\ m^2}$ = 17.7

BMI classification ...Underweight...

3. Rashid

Height 1.77m Weight 85kg

BMI = $\frac{85\ kg}{1.77^2\ m^2}$ = 27.13

BMI classification ...Overweight...

Activity 17 Measuring body fat

Circle the methods of measuring body fat.

Bioelectrical impedance	Weighing scales	Tape measure
BMI	DEXA scanner	Skinfold thickness

Activity 18 Body fat percentage calculation

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

$$\text{Body Fat \%} = \frac{\text{Body fat}}{\text{TBW}} \times 100$$

Total Body Weight (kg)

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

The person's Age, because body fat percentage categories vary with age.

6.3 Body mass index (BMI) and body fat percentage

Activity 19

Calculate 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 (body fat) ÷ 87 (TBW) x100 = 32% (body fat percentage)

Colour group: Red

1. Mansoor

Body fat: 12kg TBW: 84kg Age: 25 years

Body fat % = $\frac{12}{84}$ x 100 = 14.3%

Colour group Healthy (Green)

2. Mouza

Body fat: 18kg TBW: 75kg Age: 58 years

Body Fat % = $\frac{18}{75}$ x 100 = 24%

Colour group excess fat (Amber)

3. Amal

Body fat: 29kg TBW: 72kg Age: 67 years

Body fat % = $\frac{29}{72}$ x 100 = 40.3%

Colour group high body fat (Red)

6.4 Biochemical methods

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STARTER Keywords revision

Match the concepts on the left to their correct image on the right.

Concepts	Images
height	
weight	
growth	
waist	

Research: Analysing blood

Research some nutrient deficiencies and diseases related to nutrition that can be found by analysing blood.

Iron Deficiency (Anaemia): Low haemoglobin levels indicates anaemia, which can cause Fatigue, dizziness and pale skin.
Vitam D Deficiency: Low levels can lead to bone weakness
Vitamin B12 Deficiency: Can cause Nerve problems, memory issues and anaemia
Protein Deficiency: Low albumin levels indicate Malnutrition and can caese Swelling

Activity 20

Extra information

What other information does a doctor need to know about a person when analysing the results of their biochemical markers?
Select the correct answers.

Medical history	Eye colour	Clinical exam report
Current medicines	Physical activity level	Current mood

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6.5 Clinical methods

STARTER Clinical check-ups

Name some of the things that doctors check in a clinical check-up.

*The Vital Signs:-

*body temperature (36.5-37.2 °C)

*Pulse Rate (60-100 bpm)

*Respiration Rate (12-20 bpm)

*Blood preasure (120/80 mm Hg)

* Skin Health
*Hair and nails
*Mouth and gums
*Eyes
*Signs of infection
*Weight and Height

Activity 21 Medical history

Write down some reasons why a patient's medical history is also needed when completing a physical exam.

*Helps to identify previous illnesses related to natrian

*Detects Medications that may affect nutrition

*finds Digestive problems like malabsorption

*Assesses lifestyle factors affecting nutrition.

Research: Clinical signs

Read the following diseases caused by malnutrition and undernutrition. Explain what causes each disease and research the clinical signs that would suggest that a person has this disease.

Rickets

Cause:- Vitamin D and calcium deficiency

Clinical Signs:- Soft, Weak bones, bowed legs, delayed growth and bone pain

Anaemia

Cause:- Iron Deficiency

Clinical Signs:- fatigue, pale skin, dizziness, shortness of breath, cold hands and feets

Anorexia nervosa

Cause:- Eating Disorder, leading to extreme weight loss and intense fear of gaining weight

Clinical Signs:- Severe Weightloss, brittle hair, dry skin, extreme fatigue and organ failure. Malnutrition swelling, anxiety.

6.6 Dietary methods

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STARTER Your dietary intake

Think about everything you ate yesterday. List the foods you ate from each of the fo
groups named below.

Food group	Foods you have eaten today from this food group
Cereals and their products	Wholegrain Bread , Rice
Milk and dairy products	*organic yoghurt *A glass of milk *White cheese
Meat, fish, eggs, and legumes	* Grilled chicken * boiled eggs * Minced meat with eggs
Fats and oils	* olive oil * Almonds * Peant batter
Other foods	* Dates * Honey * Fresh Fruit

Activity 22

Twenty-four-hour recall

Think about everything you ate yesterday (include all 24 hours). Write in the table below. Try to include as much information as possible.

Mealtime	Food/drinks	Portion size eaten	Cooking method
Breakfast	* boiled eggs * Dates * fruits (banana, apple) * white cheese * Wholegrain Toast	* 4 boiled eggs * 7 dates * 1 Banana 1 Apple * 1 big spoon of cheese	The eggs were put in a watter kettle For 15 min
Lunch	* Grilled chicken * brown rice	* 200 g chicken * ½ cup of rice	The chicken ~~were~~ was grilled in the oven The rice was steamed
Dinner	* Lentil soup	* 1 bowl soup	Boiled the Lentil soup
Snacks	* Dates * almonds * peanut butter with a ~~pot~~ banana milk shake	* 7 dates * 1 spoon of almonds 1 spoon of peanut butter 3 bananas	I used a blender

6.6 Dietary methods

Activity 23

MyFitnessPal

For this activity, you are going to analyse your dietary intake using an online tool called MyFitnessPal.
Go to myfitnesspal.com or scan the QR code below to access the website. You could also use the MyFitnessPal app.

In the section labelled 'food', you can add what foods you ate for breakfast, lunch, dinner and snacks.
Try to be as accurate as possible when making entries. If you don't know the weight of the food you have eaten, you should estimate it.
When you are finished entering your food for the day, you can view a full report showing a breakdown of calories and nutrients that you have eaten in one day. Insert the information from your report in the table below. Don't forget to include the correct units.

Calories	≈2 000 - 2500 kcal
Carbohydrates	≈250 - 300 g
Protein	≈150 g
Fat	≈ 60 g
Sodium	≈ 1500 mg
Sugar	≈ 30 g

Activity 24

Types of dietary assessment

Write down some advantages and disadvantages of each type of dietary assessment.

Twenty-four-hour recall	
Advantages	**Disadvantages**
*Easy and quick to complete *you can remember what you ate yesterday	*This method relies on memory only, which might be inaccurate *only represents 1 day

Three-day food diary	
Advantages	**Disadvantages**
*The level of detail provided will allow for accurate estimates of regular dietary intake *it's done in real-time	*it requires alot of commitment *people might change their eating habits to appear healthy

Food frequency questionnaire	
Advantages	**Disadvantages**
*It can be used on large groups of people *It is quick and easy to complete	*Specif foods are listed *it requires a strong memory

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6.7 Environmental factors

Discussion: What are environmental factors?

Discuss as a class what you think is meant by environmental factors?

Environmental Factors are external influences that affect a person's food choices. These include access to:- food, cooking facilities, income, cultural and religious practices and education about nutrition.

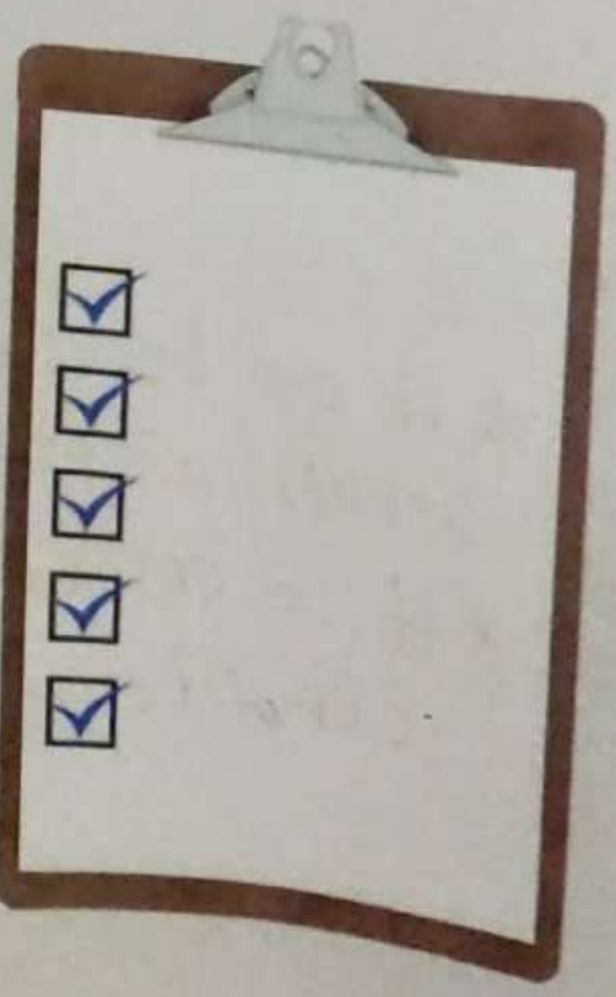
How could these have an impact on health and nutrition?

By determining the availability and affordability of healthy foods.

Activity 25 Environmental factors that affect nutritional status

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

1 Food availability
2 Socioeconomic status
3 Cooking facilities
4 Work patterns
5 Cultural and religious restrictions
6 Food deserts



Research: Social factors

Research some social factors not mentioned in the textbook that contribute to health and explain how these can impact nutritional status.

* Peer Influences:- friends and family can shape eating habits.

* Marketing and Advertising:- Unhealthy foods are often heavily promoted.
* Education Level:- Higher nutrition knowledge leads to better Food choices.

Activity 26

Healthy food on budget

Although it may seem that 'healthy' foods are expensive, it is possible to eat a healthy balanced diet on a budget. Research affordable healthy foods that you could recommend to someone who is trying not to spend a lot of money.

Grains:- Brown Rice, Oats, Pasta
Protein Sources:- Eggs, Beans, Lentils, Canned Fish
Vegtables:- Frozen or locally grown produce
Fruits:- Bananas, apples and seasonal fruits.

6.7 Environmental factors

Activity 27

Food availability

List some reasons why food choice may sometimes be limited.

High Cost of healthy food

Limited access to grocery stores (food deserts)

Lack of cooking skills

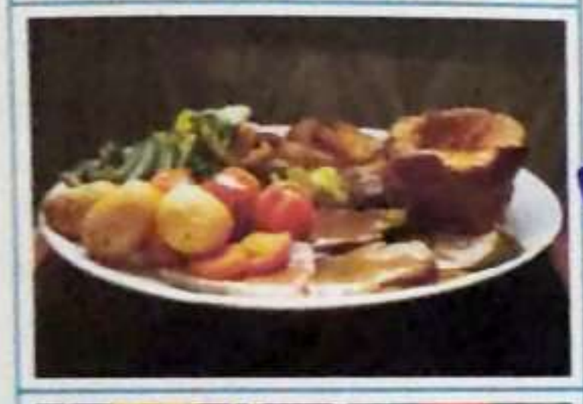
Lack of healthy cooking facilities

Notes:

Activity 28

Food from different countries

Different foods are common in different countries. Look at the foods below and match them to the country they are most eaten.



China

USA

India

Japan

Italy

UK

6.7 Environmental factors

Research: Different cultures

Research a different culture or religion to find out common foods that people eat and any foods that are restricted.

Culture or religion: Hinduism

*Common Foods:- Rice, Lentils, Vegtables, dairy products.

*Restricted foods:- Beef, due to religious beliefs.

Activity 29 Vegan diet

As a vegan diet does not contain meat vegan's need to make sure they consume enough protein and iron from other sources. List some vegan sources of iron and protein.

Iron	Protein
*Lentils *Tofu *Chickpeas *Spinach *Dates	*Beans *quinoa *Nuts *Soy Products

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End of unit quiz

1. Match the method of measuring nutritional status with the description.

Anthropometric measurements	Laboratory measurements
Biochemical methods	Medical history review and physical examination
Clinical methods	Physical measurements of the body
Dietary assessment	A record of the patient's eating patterns
Environmental factors	Consideration of social, cultural and economic factors

2. State the BMI classification for the following BMI results.

BMI	BMI classification
27	Overweight
19	Normal
16	Underweight
38	Obese

3. List the three types of dietary assessment.

24-hour dietary Recall
3-day food diary
Food frequency questionare

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4. Write down the formula used to calculate body fat percentage.

$$\text{Body fat\%} = \frac{\text{Body Weight}}{\text{TBW}} \times 100$$

TBW → Total Body Weight

5. Write down the formula used to calculate BMI.

$$\text{BMI} = \text{Weight}_{(kg)} \div (\text{Height})^2_{(m^2)}$$

Body Mass Index