

Spring Term 1

**B6 - Non Communicable Diseases
& B7 - Photosynthesis**



OLD BUCKENHAM
HIGH SCHOOL

Achieving excellence together

Aiming for Grade 6

Extended Homework Assignment

Name: _____

Set: _____

Instructions

A printed copy should be handed into your teacher.

The knowledge required to complete this assignment will be supported in class in lessons of the half term.

Aiming for Grade 6

Aims

The aim of this lesson is to help you revise the main topics in B6 – Non Communicable Diseases & B7 - Photosynthesis

Learning outcomes

After completing this activity, you should be able to:

- State some examples of non-communicable diseases.
- State some of the risk factors for some non-communicable diseases.
- State some methods of prevention of some non-communicable diseases.

- State the word equation for photosynthesis.
- State how a leaf is adapted for photosynthesis.
- State the uses of glucose in a plant.
- State and describe the factors that affect photosynthesis.

B6 – Non-Communicable Diseases

Task

You will be taking on the role of a GP and reviewing the profiles of six of your patients and giving them advice.

There are six profiles one for each of your six patients on page 4. You will need to give advice to each patient.

Complete the tables below for each patient.

Paul

Tick the risk factors that apply:

- smoking
- drinking
- age
- family history
- obese
- lack of exercise
- gender

At risk from what diseases:

Advice on prevention of these diseases:

-
-
-

Mary

Tick the risk factors that apply:

- smoking
- drinking
- age
- family history
- obese
- lack of exercise
- gender

At risk from what diseases:

Advice on prevention of these diseases:

-
-
-

Ali

Tick the risk factors that apply:

- smoking
- drinking
- age
- family history
- obese
- lack of exercise
- gender

At risk from what diseases:

Advice on prevention of these diseases:

-
-
-
-
-

Yasmin

Tick the risk factors that apply:

- smoking
- drinking
- age
- family history
- obese
- lack of exercise
- gender

At risk from what diseases:

Advice on prevention of these diseases:

-
-
-
-
-

Juan

Tick the risk factors that apply:

- smoking
- drinking
- age
- family history
- obese
- lack of exercise
- gender

At risk from what diseases:

Advice on prevention of these diseases:

-
-
-

Emma

Tick the risk factors that apply:

- smoking
- drinking
- age
- family history
- obese
- lack of exercise
- gender

At risk from what diseases:

Advice on prevention of these diseases:

-
-
-

Patient profiles:

<p>Paul:</p> <ul style="list-style-type: none">• Age 70• Male• Enjoys walking and gardening• Has a meat-heavy diet• Has the occasional pint of beer• BMI in normal range	<p>Mary:</p> <ul style="list-style-type: none">• Age 40• Female• Fitness instructor• Vegan• Has a glass of wine every day• BMI is less than normal• Mother has type 2 diabetes
<p>Ali:</p> <ul style="list-style-type: none">• Age 30• Male• Rugby player• BMI above average• Drinks heavily after a match• Has a meat heavy diet	<p>Yasmin:</p> <ul style="list-style-type: none">• Age 19• Female• Student who cycles to college• Smokes 3–5 cigarettes a day• Rarely drinks• BMI in normal range
<p>Juan:</p> <ul style="list-style-type: none">• Age 25• Male• Enjoys clubbing and pubbing• BMI is less than normal• Smokes 10 cigarettes a day• Drinks heavily at the weekends	<p>Emma:</p> <ul style="list-style-type: none">• Age 60• Female• Works in an office• Loves junk food• BMI is above average• Does not drink any alcohol• Parents had cardiovascular disease

B8 Photosynthesis – Aiming for Grade 6

Task

Question 1 You will be identifying how a leaf is adapted for photosynthesis.

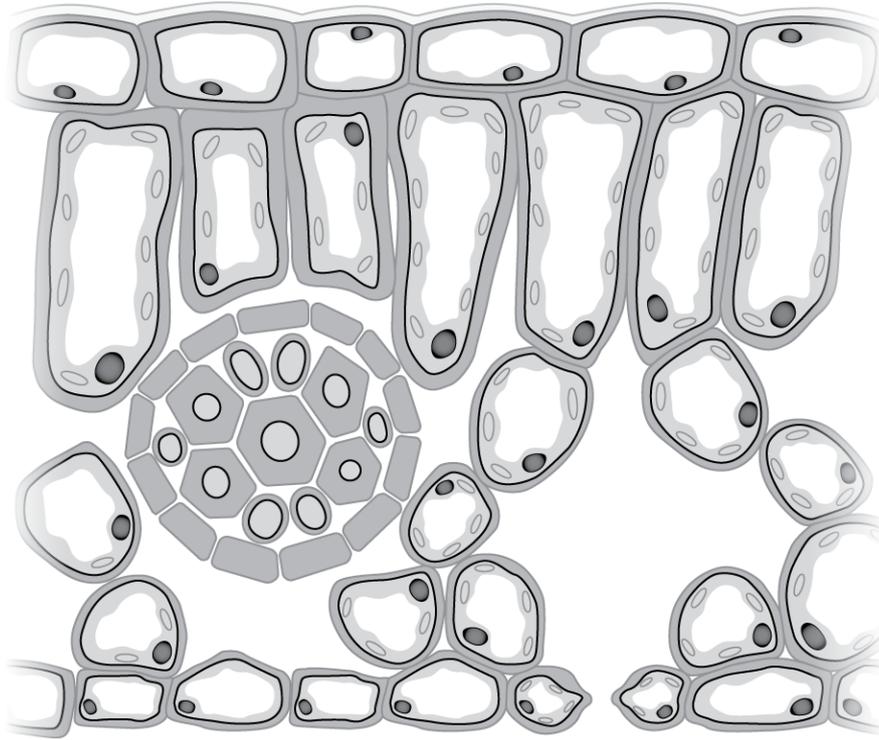
Question 2 You will be advising a horticulturalist on how to improve the yield of their crops.

Questions:

1 a View the diagram of a cross-section through a leaf.

Label your drawing with the parts of the leaf. Use the labels given below:

- | | | | |
|------------------------|-----------------|----------------|--------|
| air space | guard cell | palisade layer | phloem |
| spongy mesophyll layer | stomata | upper cuticle | |
| | vascular bundle | xylem | |



b Write one sentence to describe how the following parts of the leaf are adapted for photosynthesis.

palisade layer

.....

spongy mesophyll layer

.....

Stomata

.....

vascular bundle

.....

2 You are advising someone on how to improve the yield of their plants in their greenhouse. Write a short letter advising them how they can improve their yield. Use these headings in your letter to help you:

What do plants need to photosynthesise?

What happens when we increase the temperature?

What happens when we increase the light intensity?

What happens when we increase the carbon dioxide concentration?

What other things do plants need? (Hint: think about mineral ion requirements.)