Spring Term 1

B6 - Non Communicable Diseases

& B7 - Photosynthesis

Aiming for Grade 8

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 8

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.

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 patients each with different backgrounds. You will need to give advice to each patient.

In your doctor notes you will need to include the following things for each patient:

- What are the risk factors for each patient?
- What diseases/health problems are they at risk from?
- What are the short- and long-term effects of the potential health problems on the body?
- What actions should they take now and/or in the future to prevent the likelihood of health problems?
- Are there any positive lifestyle habits that the patient has? What are they and how can they help prevent the risk of disease?

Patient profiles:

Paul: • Age 70 • Male • Enjoys walking and gardening • Has a meat-heavy diet • Has the occasional pint of beer • BMI in normal range	**Mary:** • Age 40 • Female • Fitness instructor • Vegan • Has a glass of wine every day • BMI is less than normal • Mother has type 2 diabetes

Ali: • Age 30 • Male • Rugby player • BMI above average • Drinks heavily after a match • Has a meat heavy diet	**Yasmin:** • Age 19 • Female • Student who cycles to college • Smokes 3–5 cigarettes a day • Rarely drinks • BMI in normal range
Juan: • Age 25 • Male • Enjoys clubbing and pubbing • BMI is less than normal • Smokes 10 cigarettes a day • Drinks heavily at the weekends	**Emma:** • 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 –

Task

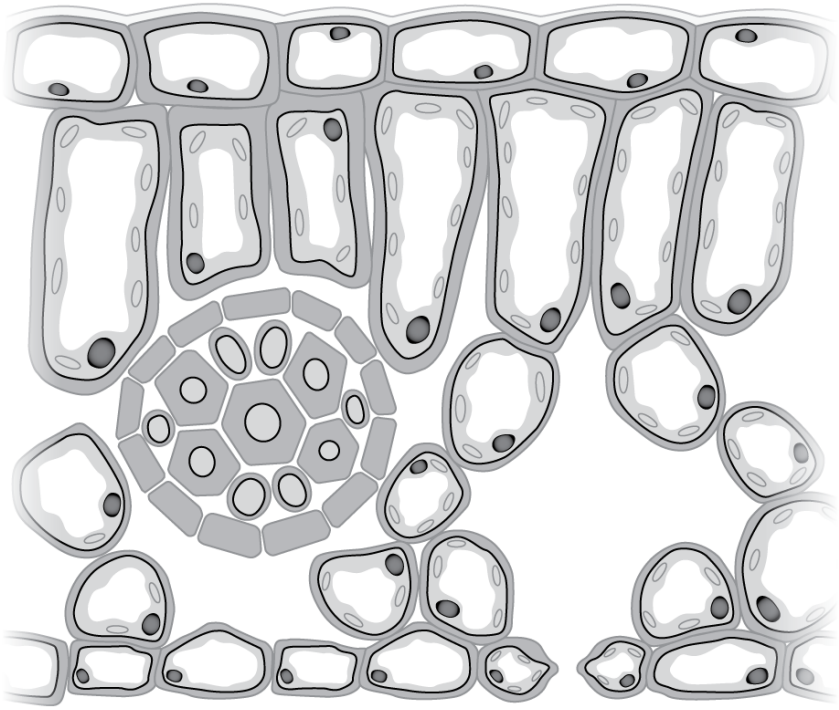
Question 1 You will be identifying how the leaf is adapted for photosynthesis.

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

Questions:

1 Look at the diagram of a cross-section through a leaf.

Label the diagram with the parts of the leaf and how each part is adapted for photosynthesis.



2 You are advising someone on how to improve the yield of their plants in their green house. Write a short letter advising them how they can improve their yield.

Things to include:

- What the requirements of the plants are (including nutrient requirements).
- What happens if there is a deficiency of any of these factors?
- What happens if there is an increase in any of these factors?
- Other things they may need to consider, for example cost.