

Summer Independent Learning Y12-Y13

BTEC Extended Diploma

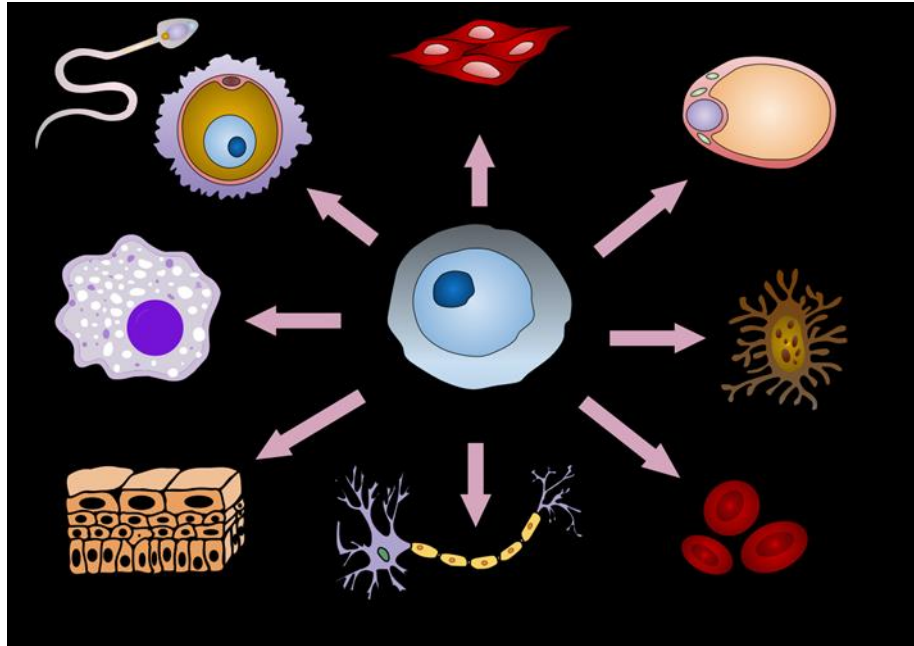
Part 1 - Compulsory content that will be tested in an assessment when you return to college.

Full Name

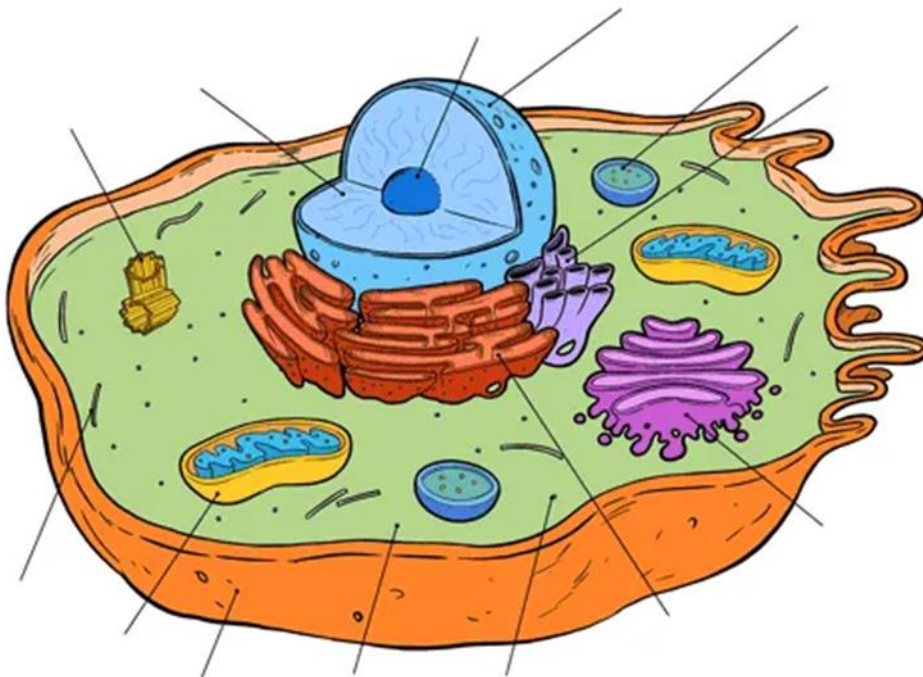


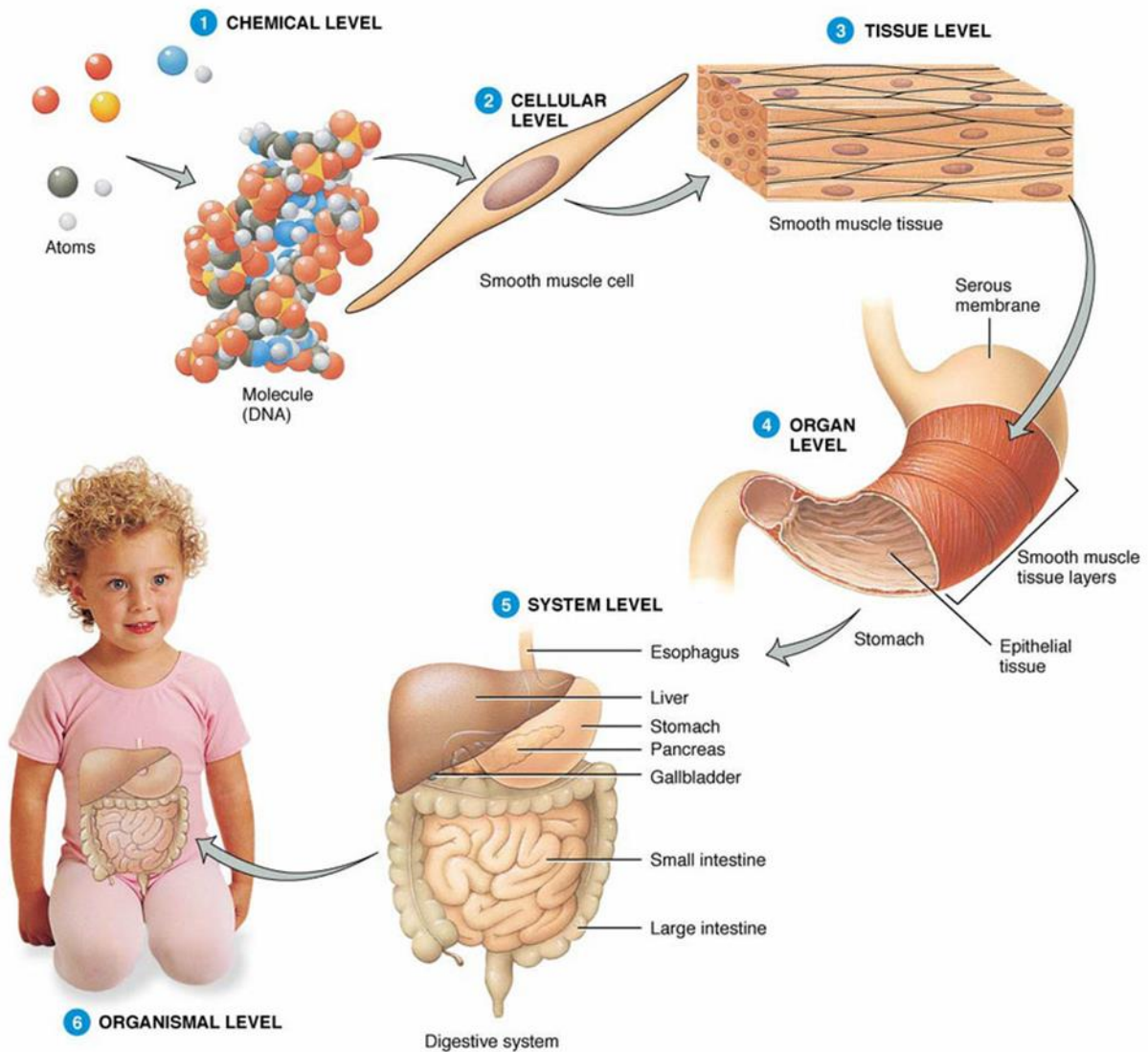
Health and Social Care

Add label lines and name each type of specialised cell shown in the image below



Add labels to name each part of the cell (organelles)





Name an organ, a type of tissue and a type of cell found in each of the three body systems listed in the table below. You can use the image above to help you with the digestive system.

System	Organ	Tissue	Cell
Digestive system			
Respiratory system			
Nervous system			

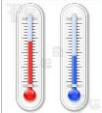





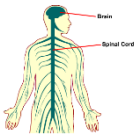
Cells, Tissues, Organs, Systems

E	S	N	G	L	Y	S	O	S	O	M	E	L	R
P	U	I	T	N	O	N	U	C	L	E	U	S	S
I	E	N	T	L	T	M	U	S	C	L	E	R	M
T	V	N	E	R	V	O	U	S	R	V	R	S	U
H	I	S	T	O	M	A	C	H	E	M	U	I	L
E	T	M	I	O	R	E	O	R	V	S	U	N	U
L	C	I	M	M	U	N	E	E	I	G	T	E	C
I	U	G	O	L	G	I	C	M	L	T	T	A	I
A	D	V	T	H	U	G	C	N	I	A	R	B	T
L	O	E	O	U	D	I	G	E	S	T	I	V	E
U	R	A	E	U	O	V	R	E	N	A	L	R	R
E	P	M	I	T	O	C	H	O	N	D	R	I	A
I	E	H	E	A	R	T	A	O	L	C	D	V	R
N	R	D	B	L	S	G	N	U	L	V	C	H	O

- MUSCLE
- LYSOSOME
- STOMACH
- GOLGI
- LUNGS
- HEART
- EPITHELIAL
- MITOCHONDRIA
- LIVER
- RENAL
- DIGESTIVE
- BRAIN
- REPRODUCTIVE
- NUCLEUS
- RETICULUM
- IMMUNE
- NERVOUS

Play this puzzle online at : <https://thewordsearch.com/puzzle/1415943/>

Part Two: Homeostasis (how the body controls temperature and levels of glucose in the blood)

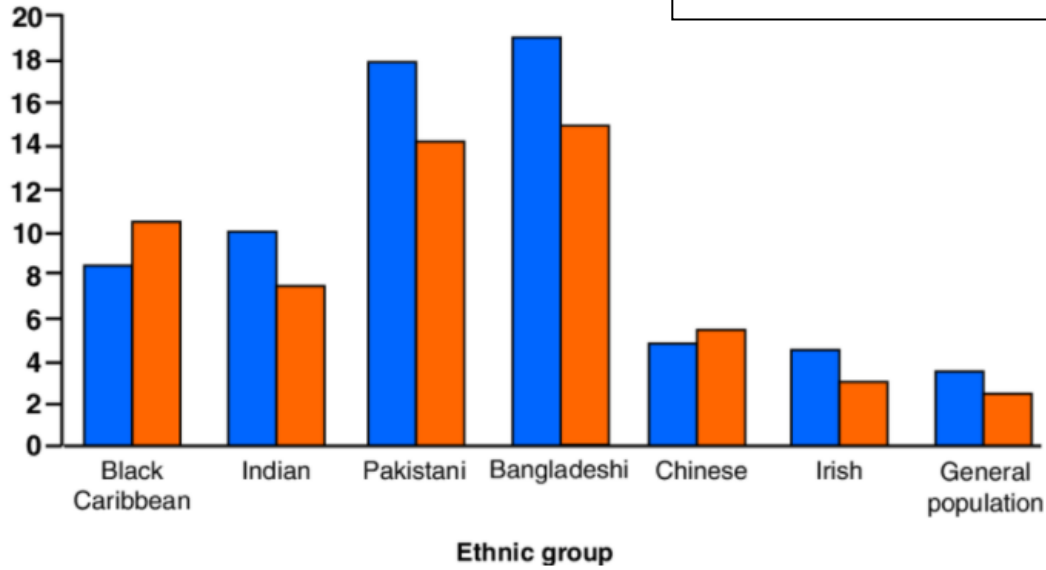
Keyword	What it means
Thermoregulation 	
Vasodilation 	
Vasoconstriction 	
Hypothermia 	
Hyperthermia 	
Homeostasis 	
CNS 	

Homeostasis wordsearch

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

- Vasoconstriction**
- Thermoregulation**
- Vasodilation**
- Shivering**
- Sweating**
- CNS**
- PNS**
- Hormones**
- Hypothermia**
- Hyperthermia**
- Homeostasis**
- Glands**
- Nerves**

Diabetes data – graph practice



Prevalence of diagnosed diabetes by ethnic group in the UK [16]. Blue bar, men; orange bar, women

Thinking questions.....

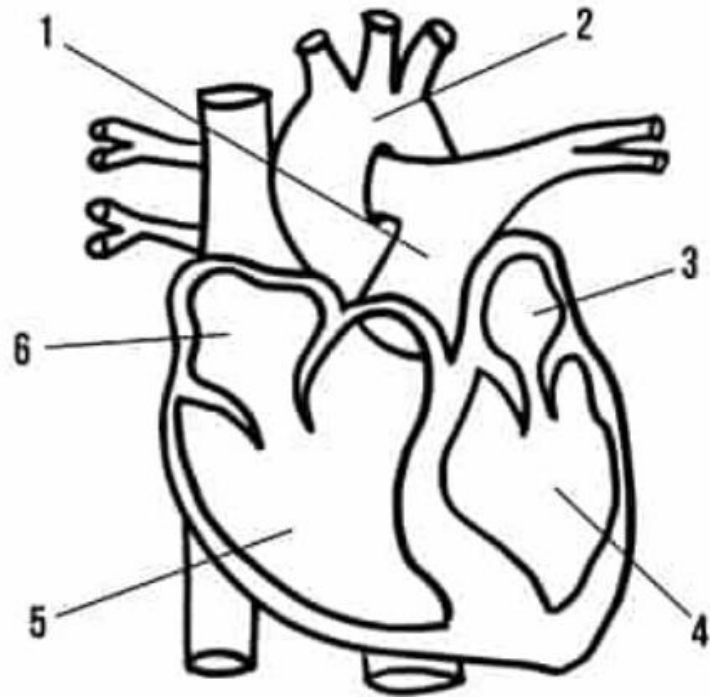
What can you *deduce* from the graph above? What does it tell you about risk factors for diabetes in the UK? Think about gender and ethnicity. Try to use the words and the numbers from the graph.

Write a summary of the risk factors of diabetes using information from the graph.

Circle the correct answer	A	B	C
The endocrine system releases chemical messengers called ...	Enzymes	Hormones	Glucose
Endocrine glands release their products directly into...	The brain	The muscles	The blood stream
The nervous system sends messages by ...	Electrical impulses	E mail	Chemicals
If blood glucose levels are too high the pancreas releases...	Red blood cells	Insulin	Sugar
The two body systems that regulate homeostasis are the...	cardiovascular and urinary systems	nervous and cardiovascular systems	nervous and endocrine systems
Which of the following best describes the endocrine system?	It is made up of glands that secrete hormones	It contains hair, skin, and nails	It regulates homeostasis by means of nerve impulses
Normal body temperature is?	31°C	39°C	37°C
Vasodilation means...	Hormones are released into the blood stream	Blood vessels close to the skin get wider so that more heat is lost	Blood vessels close to the skin narrow so that less heat is lost
Sweat cools the body by ...	Crystallising	Evaporating	Melting
Hyperthermia means...	The body temperature is too hot	The body is shivering	The body temperature is too cold
Which of these is not controlled by homeostasis?	Body temperature	Hair colour	Blood glucose levels

Part Three: Cardiovascular System – label the structures of the heart

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____



Don't forget that the left side of the body is on the right side of a diagram!

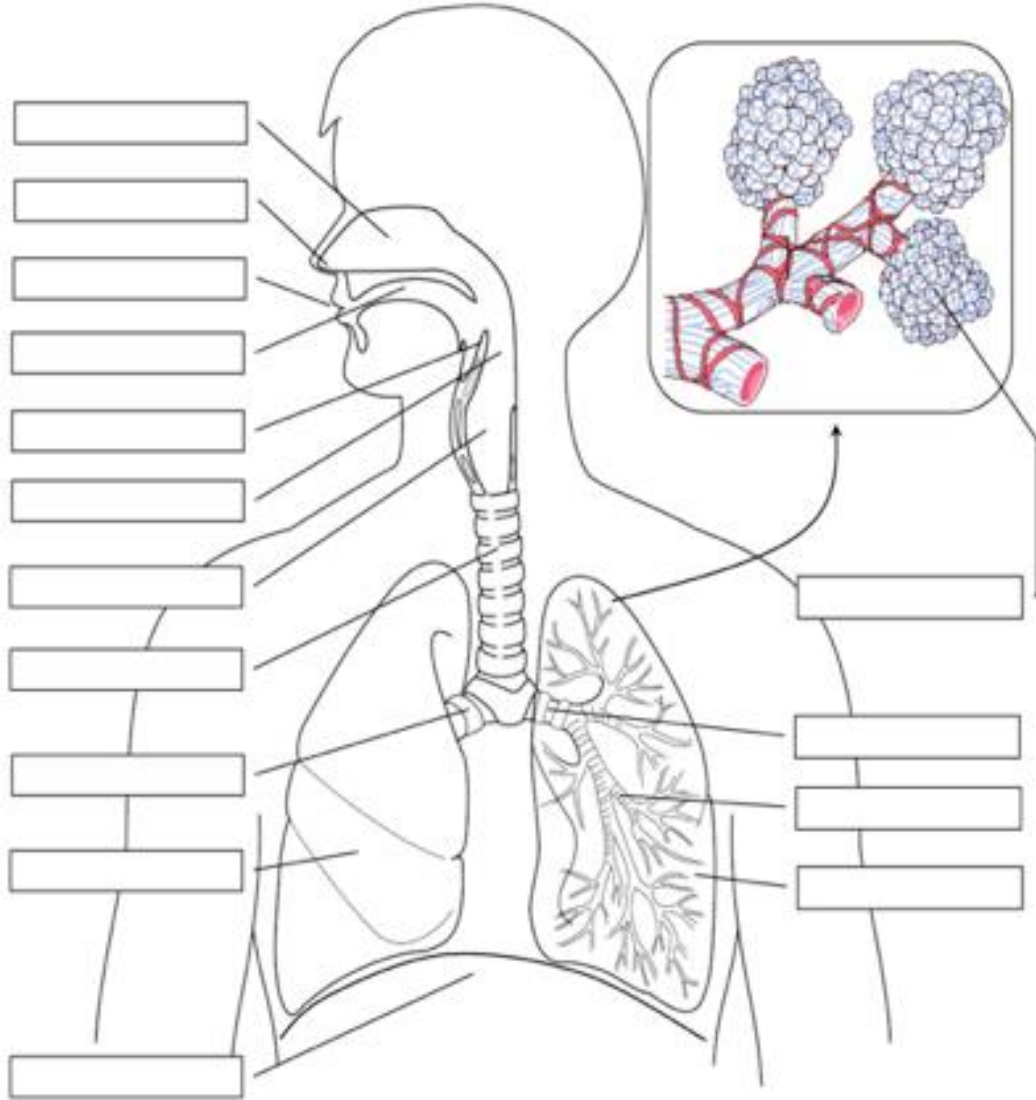
Complete the following table.

Blood vessel	Carries blood to or away from heart?	Blood under high or low pressure?	Oxygenated or deoxygenated blood?	Valves or no valves?	Thickness of walls
Artery					
Vein					
Capillary					

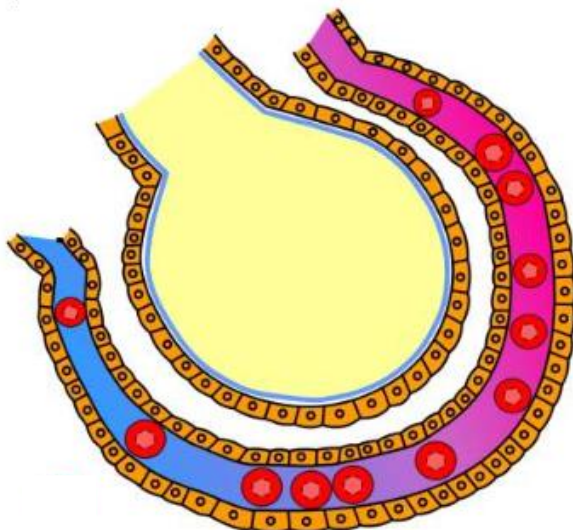
Part Four: Respiratory System

Label the diagram of the respiratory system below with the following parts, then colour your diagram.

- | | | | | |
|----------------|--------------------|------------|------------------|-------------|
| left bronchus | trachea | mouth | pharynx (throat) | diaphragm |
| nose | alveoli | right lung | left lung | oral cavity |
| right bronchus | larynx (voice box) | bronchiole | nasal cavity | epiglottis |



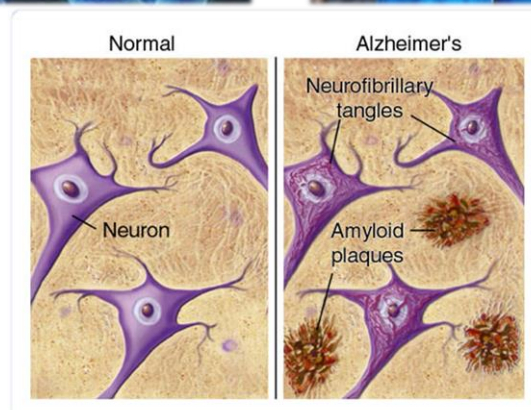
Gas Exchange at an alveolus



Add arrows and labels to explain how oxygen and carbon dioxide are exchanged at an alveolus

Part 2 – Strongly recommended additional content which will not be tested in an assessment but will support you in gaining more subject knowledge.

Physiological Disorders and their Care



What will I be studying?

If you have ever been ill then you will know how important it is to receive the right treatment and care in order to make a full recovery. It is essential for workers in the health and social care sector to understand the nature of physiological disorders and how to provide appropriate treatment and care. This includes being aware of the causes and effects of physiological disorders, as well as the roles of different professionals involved in providing treatment and care for service users.

In this unit, you will learn about the signs and symptoms of physiological disorders and how they are investigated and diagnosed. You will also learn about the different types of treatment and support available for individual service users, including surgery, rehabilitation and complementary therapies. You will create a treatment plan for a service user with a specific physiological disorder. This will help you understand the treatment and support strategies involved, the contributions of different professionals and the importance of providing individualised care. This unit will form a good basis for higher education study in health and social work courses and nursing qualifications. The information and activities will also help to prepare you for a variety of careers within the health and social care sector.

How will I be assessed?

You will be assessed by two summative assignments for this unit. The relationship of the learning aims and criteria is:

Assignment 1 - Learning aims: A, B and C (A.P1, B.P2, C.P3, C.P4, A.M1, B.M2, C.M3, A.D1, BC.D2)

Assignment 2 - Learning aim: D (D.P5, D.P6, D.P7, D.M4, D.D3)

Key Words



Please research the following key words and demonstrate your own understanding by completing the table below.

Key Word	Internet Definition	Your Definition
Physiological		
Disorders		
Disease		
Treatment		
Diversity		
Inherited		
Diagnosis		
Investigation		
Professionalism		
Regulate		
Voluntary Sector		
Private Sector		
Trusts		

Research Task 1 – Researching Physiological Disorders.

A major part of the unit is researching disorders and as such you are asked to research the following disorders by completing the table provided.

Disorder	Description	Signs and Symptoms	Reference (website/ book/ journal/ magazine/ TV programme etc.)
Diabetes			
Parkinson's			
Asthma			

Osteoporosis			
Coronary Heart Disease			
Prostate Cancer			

Research Task 2 – Research investigative/diagnostic procedure and treatments for Physiological Disorders.

Another major part of the unit is researching how the disorders studied are diagnosed and treated and to help underpin your knowledge you are asked to research the investigative/diagnostic procedure and treatments for the below Disorders

Disorder	Investigative/Diagnostic procedure	Treatments	Reference (website/ book/ journal/ magazine/ TV programme etc.)
Diabetes			
Parkinson's			
Asthma			

Osteoporosis			
Coronary Heart Disease			
Prostate Cancer			

Part 3 – Metacognition and the Study Cycle