

1. Match each definition with the correct term from the list below. Note: There are more terms than definitions.

non-infectious disease	bacteria	second line of defence	disease	contagious	fungi	first line of defence
antibiotic	virus	pathogen	infectious	cilia	anti-viral	phagocyte

Term	Definition
disease	Anything that upsets the normal functioning of the body
infectious	Disease caused by the entrance, growth and multiplication of pathogens
contagious	A disease that can be passed from one person to another
non-infectious disease	A disease not caused by a pathogen eg genetic, lifestyle and environment
pathogen	A disease-causing organism
bacteria	A pathogen that has no nucleus, is easily cultured in the lab and is killed by antibiotics
virus	A pathogen that cannot be killed by antibiotics and has a protein coat with RNA or DNA inside
first line of defence	Prevents entry of pathogens into the body
antibiotic	A medical preparation that is taken that kills bacteria
phagocyte	A type of white blood cell that engulfs pathogens and is part of the non-specific immune response
cilia	Small hairlike structures that assist in blocking pathogens entering the body.
second line of defence	Destroys pathogens that have made it past the first line of defence.

2. Classify the following diseases into their correct category.

arthritis	tinea	influenza	thrush	obesity
typhoid	emphysema	measles	tetanus	chickenpox

Non-infectious Disease - lifestyle causes	Infectious Disease – caused by pathogens, transferred from person to person.		
	fungal	viral	bacterial
emphysema	tinea	influenza	typhoid
obesity	thrush	chickenpox	tetanus
arthritis		measles	

3. Describe four (4) ways that infections can be transferred from one person to another.

- Droplet infection (through the nose) – when coughing, sneezing or talking droplets can spread out of mouth and nose.
- Direct contact – physical contact skin to skin, skin to surface
- Contaminated food and water (through the mouth) – consumption of raw/undercooked food and contaminated drinking water
- By body fluids (through breaks in the skin) – blood and semen through cuts, scratches etc
- Vectors (usually through the skin or mouth) – animals such as mosquitoes

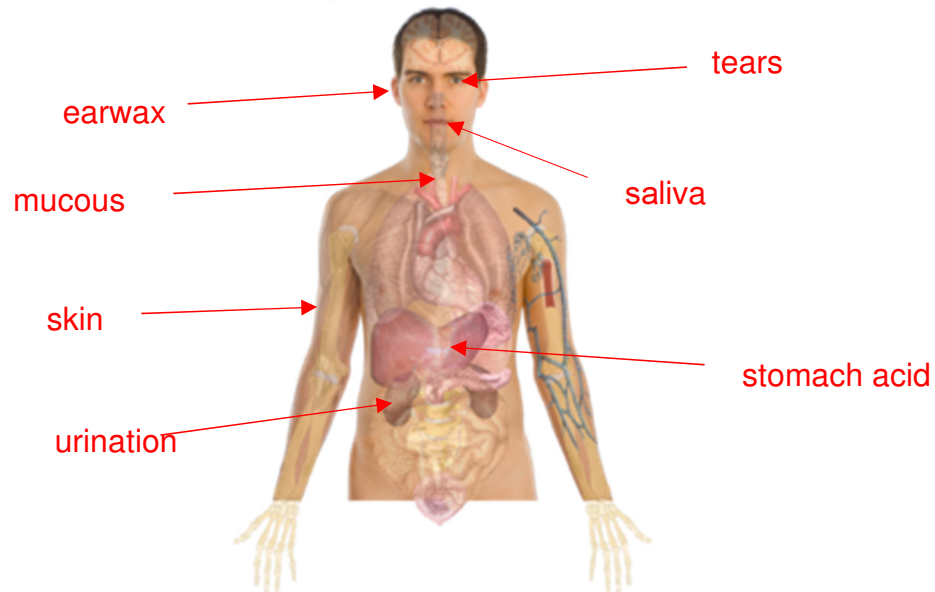
4. Explain the difference between a pathogen and a disease.

- A disease is a condition that a living organism has which disrupts normal body function.
- A pathogen is a microorganism that can cause a disease.
- Not all diseases are caused by pathogens.

5. What is the function of the immune system?

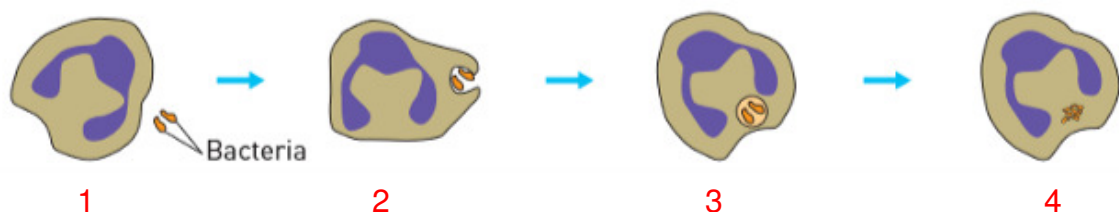
To protect the body against foreign invaders by physically stopping them from entering the body and attacking them if they manage to enter.

6. On the diagram below, label 5 of the body's first line of defence mechanisms against entry of pathogens. Then give the role of each in the table below.



Defence Mechanism	How the body part protects against entry of pathogens
Tears	Flushes the pathogen out of the body
Saliva	Antibacterial enzyme attacks bacteria
Ear wax/mucous	Traps the pathogen to prevent spread
Stomach acid	Hydrochloric acid kills the pathogen
urination	Flushes the pathogen out of the body
skin	Blocks pathogens from entering the body

7. Use a labelled diagram/s to describe the second line of defence of the body (phagocytosis).



1. Phagocyte locates the bacteria
2. Phagocyte surrounds the bacteria
3. Phagocyte engulfs the bacteria
4. Destroys bacteria with enzymes