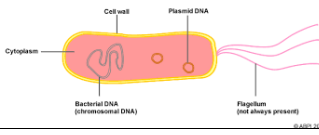

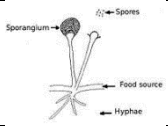



| Pathogen | Example of disease | Symptoms | Spread by |
|---|--------------------|---------------------------|----------------|
| bacteria  | cholera | diarrhoea | water |
| virus  | influenza | fever | air |
| fungus  | tinea | athlete's foot | direct contact |
| protist  | malaria | damage to blood and liver | mosquito |

Bacteria

Label this diagram using the keywords: cell wall, cell membrane, plasmid, flagellum, cytoplasm, circular chromosomal DNA.

Complete the following sentence using these keywords:

Communicable, clean, diarrhoea, tuberculosis, contaminated, washing, pathogens

Bacteria are that cause diseases like cholera and Cholera is a disease that can be spread by water. People who have this disease will have symptoms including..... Cholera can be prevented by making sure that people use water supplies for drinking and.....

Bacteria (recap)

Complete the following sentence using these keywords:

antibiotics, communicable, flagella, circular chromosome, contaminated, pathogens

Bacteria are a single-cell organisms with a of DNA, no nucleus and a for movement. Some bacteria do not cause disease, but some are bacteria are and cause disease. Cholera is a disease because it can be spread from one person to another by (dirty) water. Bacterial diseases can be treated with

Draw lines connecting the correct type of pathogen with each of the diseases:

Pathogen

Disease

Bacteria

Chlamydia

influenza (flu)

cholera

HIV

Virus

tuberculosis

ebola

Label this diagram of a bacteria and compare it to an animal cell

Fungi

Complete the following sentence using these keywords:

Direct contact, antibiotics, single, bacterial, flagella, tinea, contaminated, pathogens, multicellular

Fungi are organisms that may be celled (like yeast) or (lots of cells) like mushrooms. They can digest food outside the organism and then absorb it. The fungus called can cause athletes foot. Tinea can be spread by or by contaminated (dirty) surfaces. Because it can be spread from one person to another it is known as a communicable disease. Fungal infections can not be treated with antibiotics because antibiotics are used to treat Infections.

Label the following:



How do you think you might reduce the spread of tinea infection and avoid athletes foot?

.....
.....

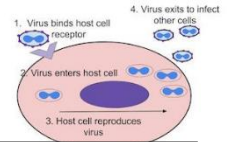
Recap question:

Is cancer a non- communicable or communicable disease?

.....

Viruses

Using the following words complete the sentences below:



flu, coughing, exist, ebola, non-living, pathogenic, nose, host, replicating, sneezing, HIV

Viruses arebecause they can not on their own.

To survive, a virus must find a host cell. For example, a flu virus will enter a human cell through the and mouth and will infect cells by entering the host cells and to produce many more viruses which can be spread by and.....

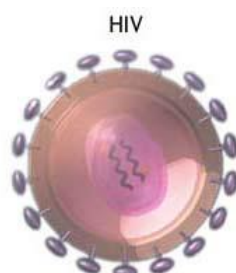
There are billions of viruses in the environment but only some are (cause disease). There are many diseases caused by viruses for example:

- a)which is spread by blood or sexual contact
- b) which is spread by direct contact
- c) which is spread by droplets in the air

Draw lines between the prevention method and the disease (there may be more than one line between each disease and prevention):

| | |
|-------|---|
| HIV | vaccination washing hands avoid direct contact clean contaminated surfaces wearing a condom |
| Ebola | regular testing for infection clean needles avoiding drugs/skunk/alcohol |
| Flu | |

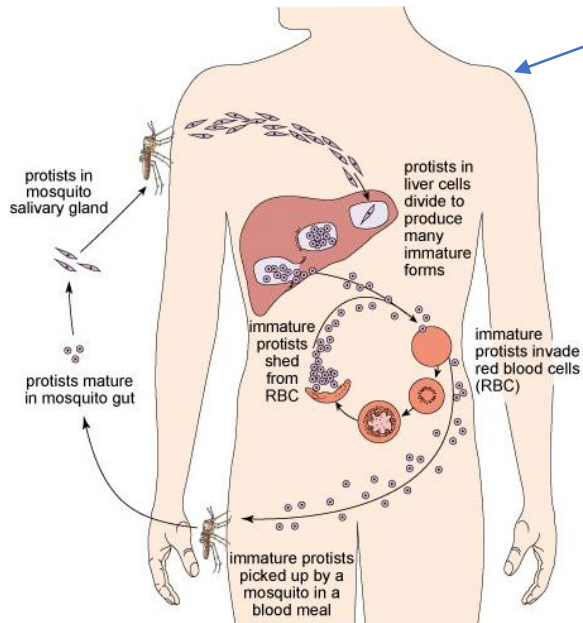
Label this virus correctly:



Protein coat

Genetic material (DNA or RNA)

Malaria



Take a look at the diagram. What does the abbreviation RBC stand for?



Why is this girl sleeping under a net?

Using the following words complete the sentences below:

mosquito, protist, liver, multiplies, bites, female, blood, transmitted

Malaria is a disease which causes damage to the and to blood cells. The pathogen is a (the Latin name for the protist that causes malaria is *Plasmodium*) that lives inside the (insect vector). When an infected (the Latin name for this mosquito is *Anopheles*) mosquito feeds from human blood some of the protists are into the human host. The protist then inside the human's blood system and causes liver and damage.

When a female mosquito feeds on human that has already been infected by malaria protists it can then transmit them to another person!

Common infections

Complete this sentence: A pathogen is a that causes

Link the following diseases with the correct pathogen.

| <u>Disease</u> | <u>Pathogen</u> |
|-----------------|-------------------------------|
| Cholera | <i>Tinea</i> (fungus) |
| Malaria | |
| Influenza (flu) | protist (<i>Plasmodium</i>) |
| Athlete's foot | |
| Chlamydia | virus |
| HIV | |
| Tuberculosis | bacteria |

Now complete these sentences using the words below:

protist, direct contact, sanitation, cholera, *Tinea*, bites, diarrhoea, water, liver, mosquito, blood, non-living, genetic, air, influenza, net

.....is a bacterial disease which causes..... The disease can be spread in contaminated (dirty)..... which is often a consequence of poor and overcrowding.

Malaria is caused by a (*Plasmodium*) which is spread by (vector) and causes damage to and and it can be prevented by reducing the number of mosquitoes and/or sleeping under a mosquito to reduce the number of mosquito

..... is a disease that is caused by a virus. A virus is aparticle that containsmaterial (DNA or RNA) and can only survive inside a living cell. The flu virus is spread in theand causes fever and flu like symptoms.

Athletes foot is caused by the fungus and is spread by or contaminated (dirty) surfaces.

Methods for reducing or preventing the spread of pathogens.

A pathogen is a that can spread

Link the following diseases with methods to reduce spread of infection:

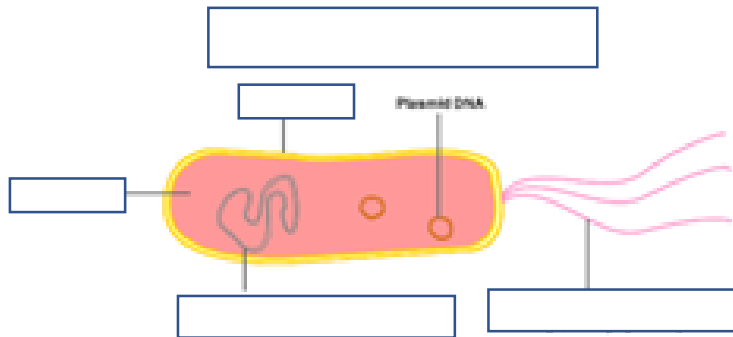
| <u>Disease</u> | <u>Prevention</u> |
|-----------------|-------------------------------|
| Cholera | use of condoms |
| Malaria | clean water |
| HIV | mosquito nets |
| Tuberculosis | washing hands |
| Chlamydia | insect repellent |
| Influenza (flu) | clean surfaces |
| Athletes foot | general hygiene (cleanliness) |

Using the following words, label these pictures correctly.

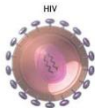
Bacteria, HIV virus, athletes foot, yeast cells (fungus), flagellum, bacterial DNA, cell wall, cytoplasm, mosquito (vector for malaria)



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[Empty label box]



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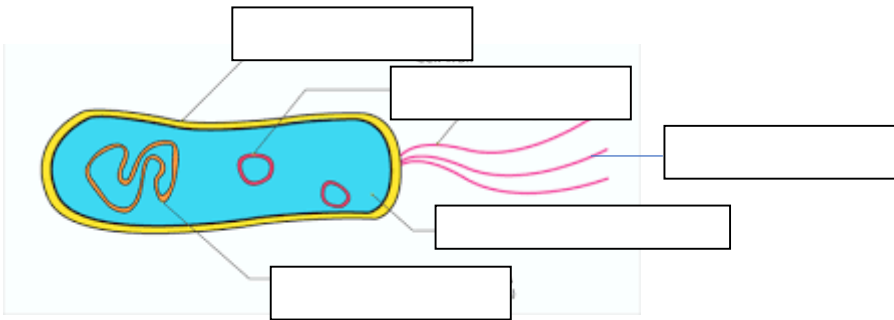


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Sexually transmitted infections (STIs)

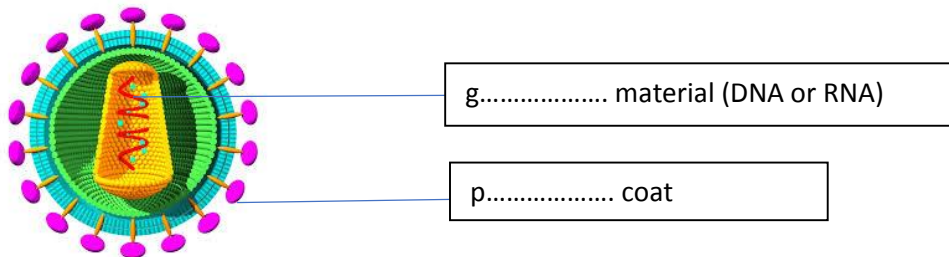
Chlamydia

Label the diagram with the following words: **flagella, plasmid, chromosomal DNA, cell wall, cytoplasm**



Chlamydia is caused by a b..... and it is transmitted by s..... contact. It is easy to detect by a u..... test and it can be treated with anti..... If *Chlamydia* is not detected it can cause in..... (difficulty in having children). The best way to avoid getting *Chlamydia* is to have protected sex by using a c..... and get regular testing.

HIV



HIV is a virus. Viruses are considered to be non-l..... particles because it can only survive by infecting a host cell. HIV infects human w..... blood cells. HIV is transmitted by s..... contact or blood contact. It is easy to go to the doctor or a clinic to get a b..... test to detect the HIV virus and it can be treated with anti-retrovirals. The best way to avoid getting HIV is by avoiding unprotected sex and using c..... and regular testing for HIV and other STIs.