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Health, "Disease and Immunity", Interactive Quiz

Form	neat, complete, conventional
Flow	organized, informative, self-explanatory
Content	clear, correct, conventional

DISEASE and Immunity

This is an interactive quiz. Interact by choosing the answer that fits best and go to the page indicated.

To start, go to the page named "airfoil".

A contagious disease is a type of sickness that can be spread from person to person easily. They can be passed on in outbreaks. An example of a contagious disease is the measles. The measles is a contagious disease because it can easily be spread from person to person. Which of the following is not a contagious disease?

Cold virus



Chicken pox → antibiotic
Cold → battery
Cancer → closed circuit

Airfoil

A disease that is not contagious is cancer.

- Cancer is a type of disease called "noninfectious disease", it is not called a "contagious disease".
- A contagious disease is a disease that can be easily spread such as a cold, but cancer can not easily be spread.
- A person that has cancer can't give it to another person.

Airfoil: any surface designed to help control or lift an aircraft, such as a rudder or a wing.

Oops !!

A pathogen is something that is able to cause a disease and it is an organism. When a pathogen enters a body, that person can get ill. It can cause diseases because a pathogen can release toxins which are not good for you. A toxin is a type of poison. What is essential for a pathogen?



It's able to cause diseases → closed circuit
It's an organism → series circuit
It can enter the body → air fall

Antibiotic

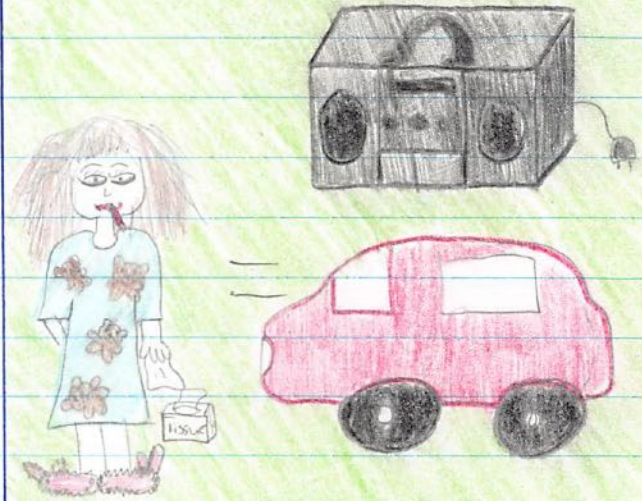
It is essential for a pathogen to be able to cause a disease.

- Every pathogen should be able to cause a disease.
- Pathogens are harmful to one's body because it can cause illnesses.
- A pathogen gives the body a disease by invading the body.

Antibiotic: An antibiotic is a type of substance that can kill or weaken some harmful microorganisms.

Oops !!

Most days, our body is fine and we feel great. Our body would be normal on those days and help us get through the day more easily. There are also those days when our body is not doing so great. Sometimes we don't even want to move on those days. Which of the following is most like our body?



Car → closed circuit
Phone → open circuit
Radio → airfoil

Battery

A car is most like our body.

- Sometimes a car can break down, just like our bodies when we are sick.
- Our body can break down when something harmful enters our body, if something harmful or sharp pokes a tire it will become a flat and the car can't go on anymore.
- Our body can get better when it catches a contagious disease, and a car can be as good as new later too.

Battery: a group of cells supplying electrical energy.

Good!

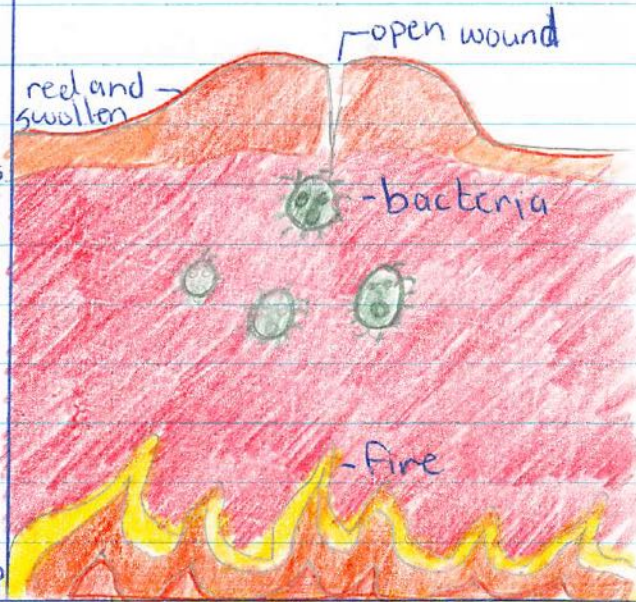
There are different microscopic invaders that can enter the body and make you ill. It's a good thing that there are different types of defenses in our bodies that can help protect us from these harmful creatures so that we won't get ill. Inflammation is a type of defense in our body.

Inflammation protects us from infection. When it is working, the infection may feel warm, get swollen, and hurt. How does inflammation protect our body from microscopic invaders?

By crushing them → series circuit

By blocking them from our system → open circuit

By burning them → parallel circuit



Closed Circuit

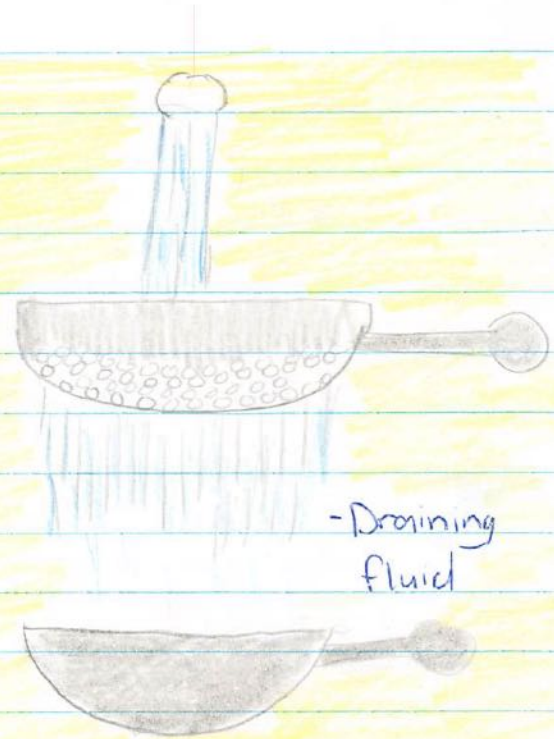
Inflammation helps protect our bodies from harmful microscopic invaders by burning them.

- Having the infection feeling warm is evidence that it is burning the harmful microscopic invaders.
- When the cell releases histamines into the blood, it widens blood vessels, or vasodilation. When this happens, the area becomes red and swollen because it is burning the microscopic invaders.
- Burning the germs is a good way of killing them.

Closed circuit: a complete or unbroken electrical circuit; a closed circuit has no gaps.

Oops !!

The lymphatic is a type of system in the body. The lymphatic system consists of lymph vessels, thoracic duct, spleen, lymph nodes, thymus gland, and a right lymphatic duct. The lymphatic system does different things such as preventing disease and filtering lymph. What is the main thing the lymphatic system does?



Transport fluid → open circuit
Helps prevent disease → insulator
Filters lymph → potential energy

Dense

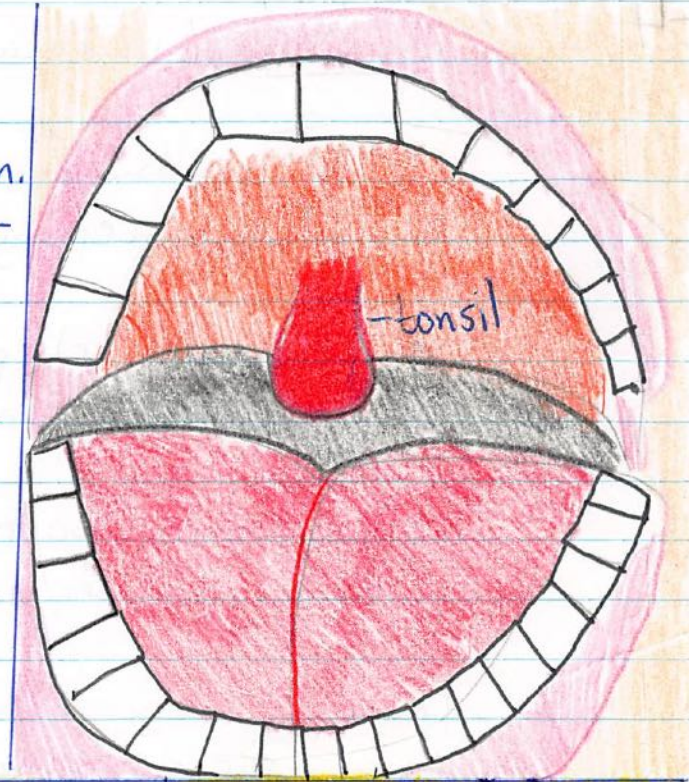
The lymphatic system mainly filters the lymph.

- The lymphatic system is the system in our body that drains lymph.
- The lymphatic system helps our body because it drains the fluid that may cause any harmful disease.
- The lymphatic system fights infection.

Dense: Closely packed together.

oops!

A tonsil is located at the back of the roof of the mouth. There are two of them. A tonsil is made from a lymphatic tissue. The tonsils grow during our childhood. Tonsils help our body too. How do tonsils help us?



They block bacteria → kinetic energy
It protects our throat → potential energy
It protects us from choking → series circuit

Fulcrum

Tonsils help us because it protects our throat.

- The tonsils are located on the roof of the mouth protecting our throat.
- The tonsils help protect our throat from things such as an infection.
- The tonsils also help protect our airways from infection.

Dense: closely packed together. Example: The piece of granite was more dense than the marshmallow.

Oops!

An antibody is a type of protein in our bodies that is part of the immune system. Like all of the things in the immune system, it participates in protecting our body from any harmful organism that may invade our body. What does an antibody do to help our body?



Make sure we don't have the same disease twice → thrust
Produce T cells → fulcrum
Help disable a pathogen → thrust

Insulator


An antibody helps disable a pathogen (disease-producing organism).

- An antibody is a protein that is part of the immune system.
- The immune system protects our body from harmful organisms and a pathogen is a harmful organism.
- The antibody must destroy the pathogen because that is its job.

Insulator: material that offers a great deal of resistance to the flow of electricity or heat. Insulators conduct electricity or heat very poorly or not at all.

Oops!

The immune system is part of the systems in our body that are helpful to us. There are different things in our body such as antibodies which are part of the immune system. The immune system has to do with diseases and organisms. It helps us in different ways but there is one thing that it mainly does. What does the immune system mainly do for our bodies?



What does the immune system mainly do?

Protect our bodies from organisms → thrust
Make sure we don't get the same disease twice → lubricant
Drain away the harmful fluid → dense

Genetic Energy

The immune system from harmful organisms that can invade our body.

- The different things that are part of the immune system fight off and destroy harmful organisms that may invade the body.
- The immune system gives the body resistance that defends our body from harmful organisms.
- The immune system has many things that kill the organisms.

Kinetic Energy: the energy in a moving object.

Good

Many people have allergies. An allergy is an excessive immune response to an antigen. When someone gets an allergic reaction it can cause skin rashes, sneezing, asthma, or even loss of consciousness. A person gets an allergic reaction when one is hypersensitive or allergic. There are many things that can cause this. Which of the following commonly causes an allergic reaction?

feathers → kinetic energy

water → antibiotic

dust → switch



Lubricant

Dust is something that commonly causes an allergic reaction.

- Dust is something that can enter the body and cause an allergic reaction.
- Dust can cause sneezing which is a type of allergic reaction.
- Dust is something that many people are allergic to and there is plenty of dust all around us.

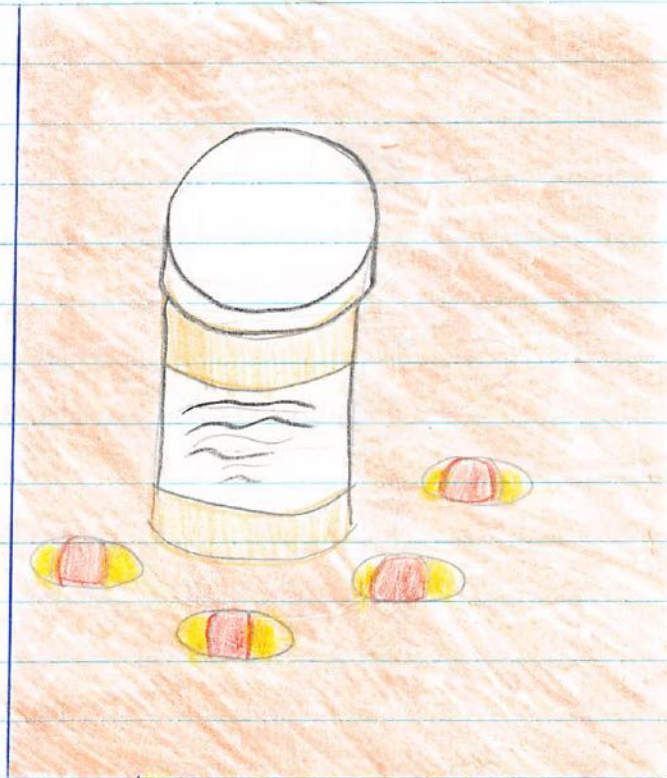
Lubricant: A substance that reduces friction.

OOPS !!



Drugs help our body fight of diseases and help our body. A drug is a type of chemical that affects our body by doing things such as affect the process of a disease or the functions of the body. Different types of drugs are antibiotics, analgesics, and narcotics. An antibiotic kill bacteria and stops it from infecting the body. An analgesic relieves pain. Which of the following is a type of analgesic?

tylinal → parellel circuit
narcotic → fulcrum
sleeping pills → battery



Open circuit

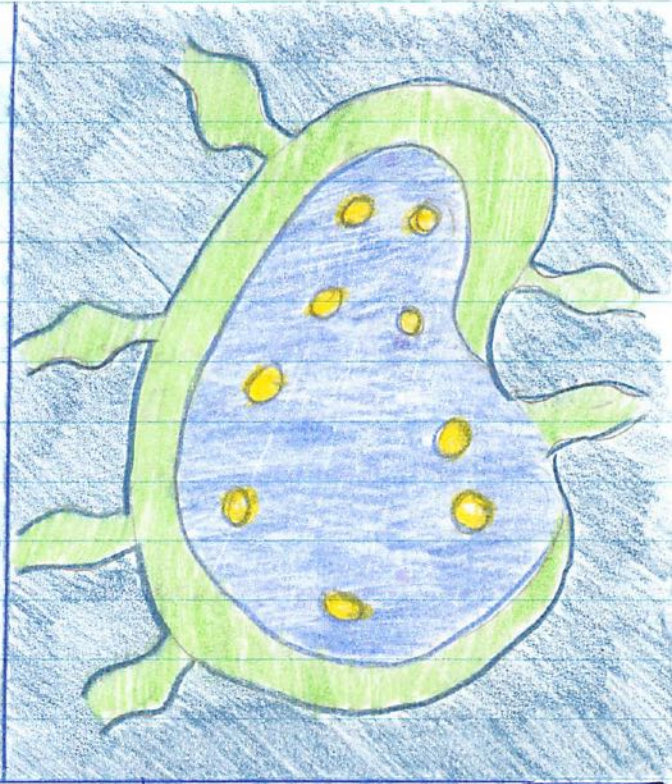
Tylinol is an example of an analgesic.

- Tylinol is a type of drug because it affects the functions of the body
- Tylinol is a type of analgesic because it helps relieve pain.
- Tylinol is a type of drug that deals with mild pains. Tylinol would be used for a type of pain such as a headache, but something more severe would require narcotics.

Open circuit: an electrical circuit that is broken or incomplete.

Good!

A lymph node is part of the lymphatic system. It is shaped like a bean that swells in a lymph vessel. A lymph vessel works like a filter. Lymph flows into these lymph nodes. The lymph is cleaned here. When it is clean, it then flows out. Which of the following is most like a lymph node?



A faucet \rightarrow potential energy
Stove \rightarrow fulcrum
A washing machine \rightarrow dense

Parallel circuit

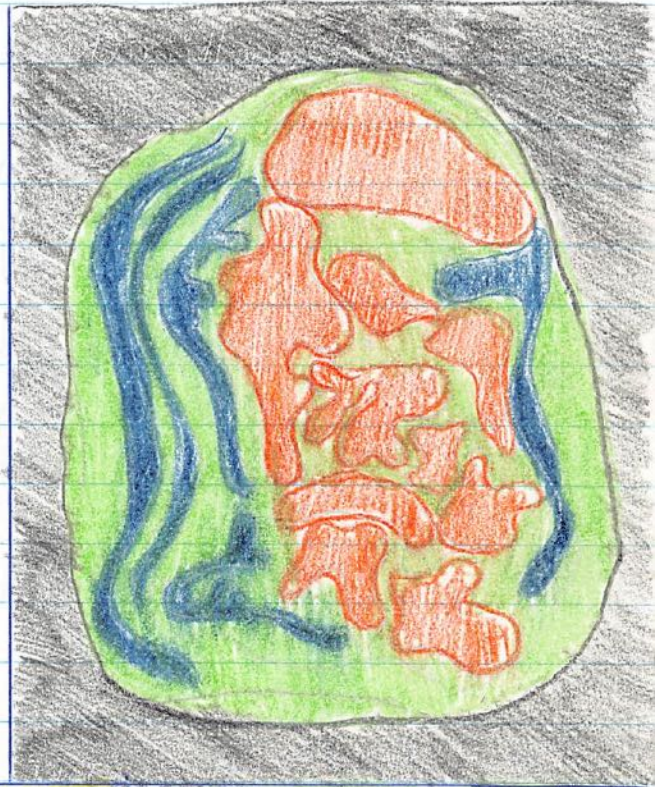
A lymph node is most like a faucet.

- A lymph node has lymph flowing through it and a faucet has water flowing out of it.
- A lymph node filters liquid and then it can flow out. The water is first filtered, then it can go through the faucet.
- A lymph node has these things in common with a faucet, but it doesn't have many things in common with a washing machine, and stove which is why a faucet is the correct answer.

Parallel circuit: a circuit with more than one electrical path, each load having its own path to the energy source,

Gaps!

B cells are part of the immune system. A B cell is a type of lymphocyte. A B cell is a type of cell that can transform itself into something else such as a plasma cell. B cells help our bodies by protecting us from invading harmful organisms by doing something. What does a B cell do to help us?



Produce antibodies → Thrust
Attack invaders → Insulator
Produce T cells → kinetic energy

Potential Energy

A B cell produces antibodies (a helpful protein).

- A B cell is a cell that produces antibodies which are helpful to us.
- A B cell produces correct antibodies to help attack the invader when the B cell turns into a plasma cell.
- A B cell can make antibodies rapidly if an invader suddenly appears.

Potential energy: energy that is stored in an object.

Oops!

Bacterial flora is a type of bacteria that is usually found on the surface of a body. Some examples of where this is found is the skin, mouth, and intestines. Lots of bacterial flora is found in these places. Bacteria flora is known to be harmless, but sometimes it can be. Why is bacterial flora helpful and harmful to your body?



It protects your body and causes disease → parallel circuit
A little helps, but too much is harmful → antibiotic
It gives off germs while it helps → dense

Series circuit

Bacterial flora is helpful and harmful to our bodies because it can prevent and cause disease.

- Bacterial flora is a type of defense in our body which helps us.
- Bacteria is harmful to our bodies because they can cause disease.
- Bacterial flora protects our body from microorganisms which are harmful to our body.
- If some of the bacterial flora gets into our bodies' tissues it can cause a disease.

Series circuit: a circuit with more than one electrical path.

Good!

This concludes the quiz on "Disease and Immunity":
If all of your choices were correct, then you win. If
any selection was an "oops", then please restart,

main point: The immune system helps our
body by protecting it by disease.



The
immune
system helps
us!

Switch

Switch: A device for stopping electricity from flowing in an electrical circuit.

