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Differentiate between renewable and non renewable energy resources? Briefly explain solar energy, wind energy and biofuel?

There are two types of the source of energy in the world renewable and non renewable energy resources.

Renewable Energy	Non renewable Energy.
This energy is produced through various natural resources in the world. They always present in the world.	This energy is present in nature but it cannot restore immediately.
It can produce within short time	It produce within a centuries.
It does not pollute environment	It pollutes environment
They are cheaper	They are costly
They are produced through unlimited resources	They produce only in certain areas

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They save money
and produce energy
at higher level

The do not save
money. The developing
are under debt due to
the lack of these
resources.

Solar energy:

Solar is produced through
the rays of sun. When these sun
rays reflect on photovoltaic plate
it transforms it into electricity.

Active and passive solar energy are
the types of solar energy.

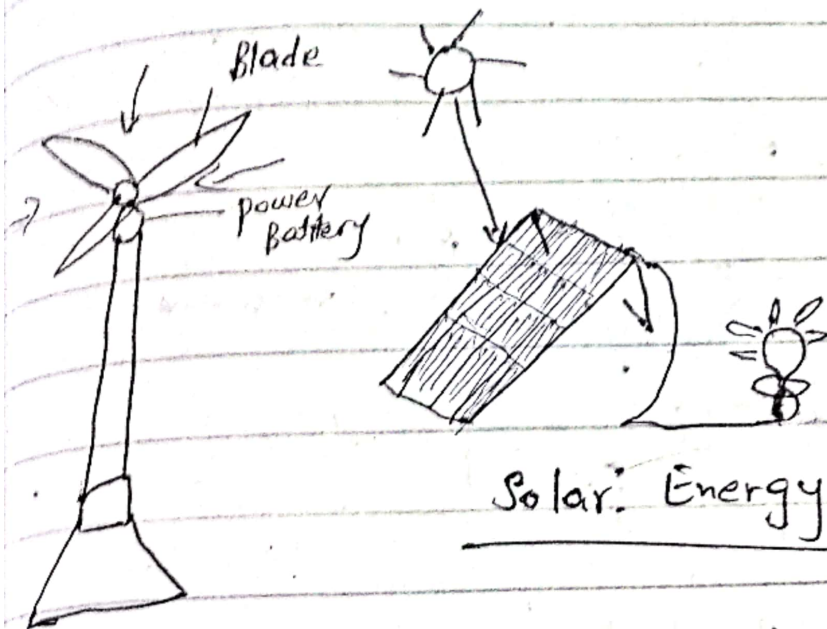
usage:

It is used in space
satellites, industries and domestic
level.

Wind Energy:

Wind energy is produced
through the blowing of wind. Wind
mills are erected in those areas which
are near dry or arid zone. Wind
energy can produce 4000 Mgw but
it produce only 2-3000 Megawatt.

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It covers book areas for the provision of energy.



Wind mills

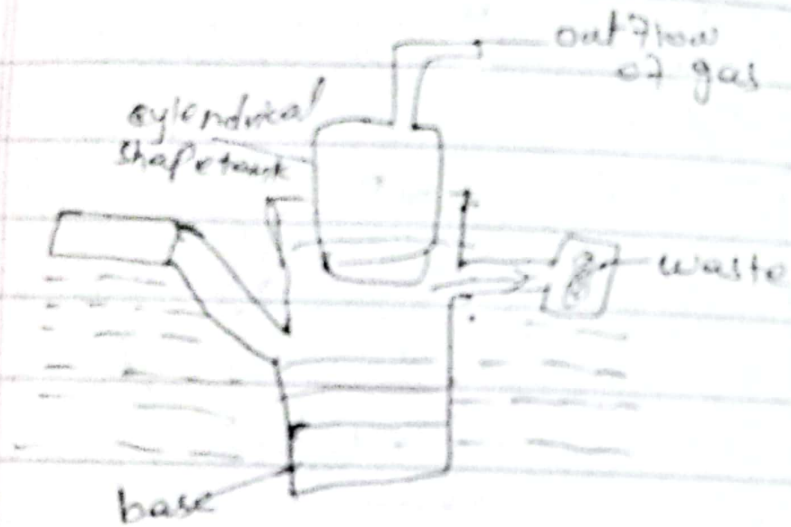
The wind mills are usually erected at highland areas.

Biofuel:

Biofuel is the production of energy through crops, garbage or plant waste. It may be in form of liquid, and gas. or Bio ethanol, Bio diesel Biogas are the example of Biofuel. It is an alternative use of fossil fuels. This energy is produced in Brazil, USA and

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European countries.



Biofuel → Biogas production

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What is biofuel? How biofuel helps in the clean environment?

Biofuel is an alternative source of renewable form of energy. It produces through crops, waste and crop's waste.

Forms of Biofuel

It may be produce in the form of gas and liquid.

Biofuel in the world

It is produced in USA and European countries. European countries produce liquid form of biofuel (ethanol) USA and Brazil produce in the form of gas.

How biofuel helps in clean the environment

Increase absorption of CO_2 :

Biofuel require crops for the production of fuel.

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fuel. When ^{more} crops are planted the more absorption of CO_2 in environment clean the environment.
Less emission of CO_2

According to the research of USA Institute of Fuel and Energy biofuel produces CO_2 less in the environment rather than fossil fuels.

Land protection

Biofuel covers less area of the land, whereas the fossil fuel industries require more broader area. In this way less land are used for industry we save the land from the industrial dangers.

Continuously production

It is the form of fuel which we can produce at any time. It requires less time for the production.

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In this way consumer more use the biofuel rather than fossil fuels because it is available in time and at cheaper price.

→ Clean Environment!

When the wastes of crops and animals are used in the fuels. It is abolishing way of deminishing waste from land. In this way the environment will remain clean.

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What is polio? Symptoms, Causes of spreading prevention and vaccine?

Polio:

Poliomyelitis is a name of polio virus which had been spread in the world in 20th century but it controlled through vaccine. Pakistan and Afghanistan do not eradicate this virus because of security, tribal and unwilling participation of public. In KPK people had killed polio team in 2021.

Symptoms:

Polio virus showsⁱⁿ the symptoms of fatigue, fever, pain in joints and limbs.

Impact:

It impacts on nervous system and become a man paralyze for whole life. If it impacts on further muscles which are involved

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in respiratory system then it become the cause of death.

Strains of virus:

The virus has 3 strains. The virus cannot live if it cannot find the unvaccinated person. The strain 2 had ^{been} died in 1999 but the strain 3 is now less in its strength.

Causes of polio virus:

Contaminated water and food are the main cause of polio virus.

How it spread:

When an unvaccinated man drinks or eats contaminated water and food then it impact on his intestinal tract and it become grow and impact on nervous system. If the man do not wash his hand after ~~any~~ ~~visiting~~ using washroom or then it spreads. It spreads through the

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taking the
contamination of food and water
It can also spread if a person
changes the diaper of an infected
poliovirus baby and does not wash
his hand then it spreads.

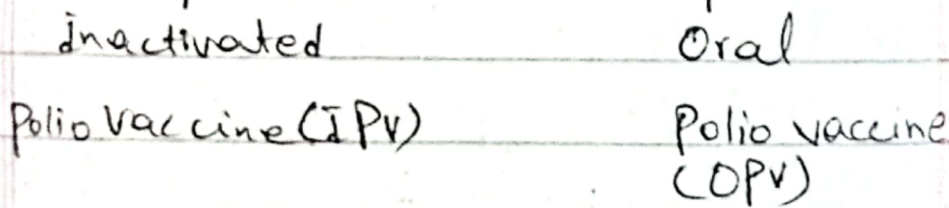
Prevention:

Proper sewerage system
clean water availability and
food, ~~Follow~~^{*take} proper vaccination
are the main tools for prevention

Vaccine,

vaccine is the only
treatment for poliovirus.

vaccine.



inactivated polio vaccine:

Inactivated
polio vaccine is based on ^{weak} alive germs/
bacteria of polio. They are taking
in the form of injection in legs

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or arms.

Oral Polio vaccine:-

It is taking through mouth/oral. It is giving to adv children.

First dose: 2 months baby age

second dose: 4-6 months

Third dose: 6-18 months

Fourth dose or booster dose: 4-6 years.

Difference between the cell wall and cell membrane?

Cell is the basic unit of life. Some cells have cell membrane whereas other cells have both cell membrane and cell wall. There is a difference between cell membrane and cell wall according to their shape, structure, function, visibility and size as well.

Cell wall	Cell membrane:
Introduction Cell wall is present in plant cell	It is present in both plant and animal cell.
Size It is thick, rigid and 14-20 μm wide	It is thin and 5-10 nm wide
Observation It can be observed through light microscope	It can be observed through electron microscope.
Function Its basic function is to provide support to plant	Its basic function is to maintain the structure of protoplasm.

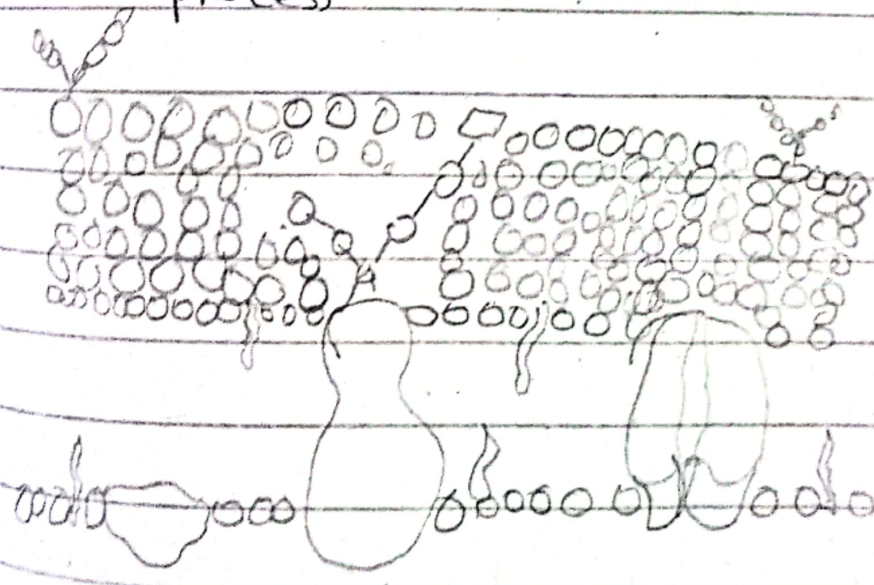
permeable	It is permeable	It is selective permeable.
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Fermentation	It is covered by surrounded by cell membrane	It is surrounded around the cytoplasm.
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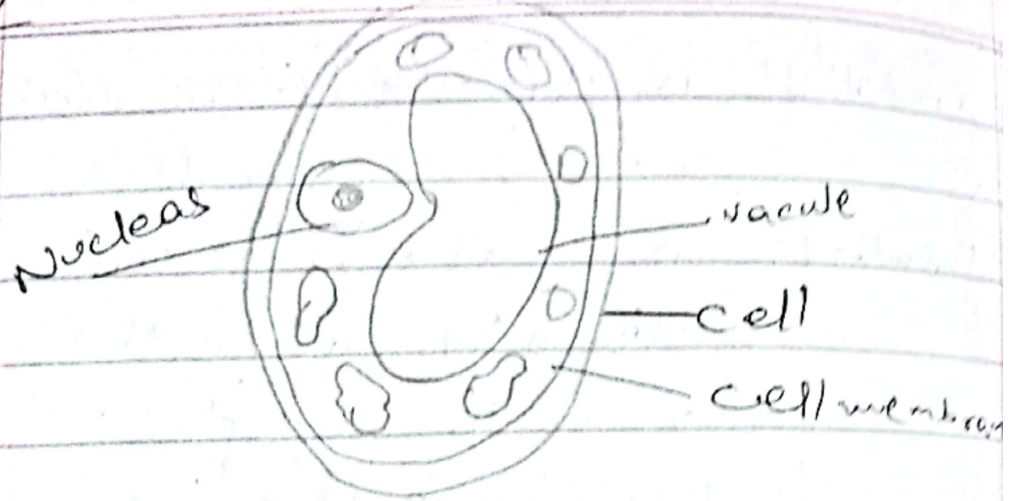
It is made up of peptidoglycan in bacteria, chitin in fungi and cellulose in plant	It is made up of lipids glycolipids, proteins carbohydrate. cholesterol
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Metabolic process	It is not alive and deionan active in metabolic process	It is alive and active in metabolic process.
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Process



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Cell wall in a cell