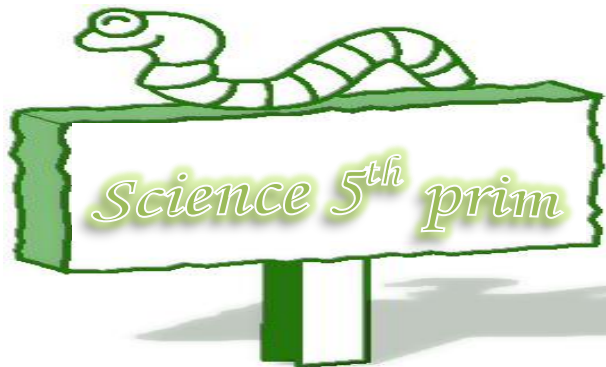


Questions

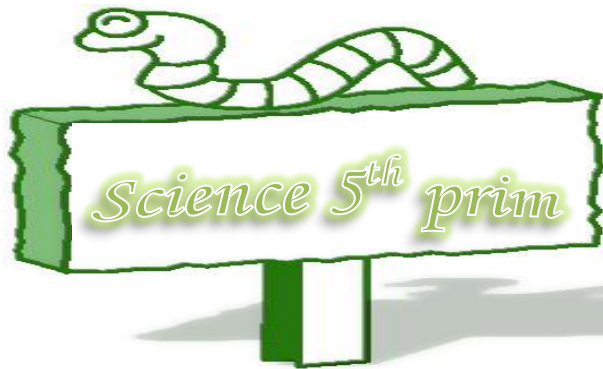
Unit (1) & (2)

1) Give reason :

1. Lubricants & oil are used in machines.
2. * Ball bearing are put between the surfaces of moving parts of machines.
* Using ball bearing in machines.
3. Ball bearing is designed to reduce the friction force.
4. Rockets & air crafts have stream line shape.
5. Bodies of birds have stream line shape.
6. Birds stretch their wings on landing.
7. Parachutist open his parachute on landing.
8. The friction depends on type of material surface.
9. The rise in temperature of internal parts of machines.
10. Friction force causes an economical loss.
11. Car drivers shouldn't increase the car speed up to a certain limit.
12. Car tries should be replaced when their grooves disappear.
13. Car tires have grooves.
14. Car movement needs friction.
15. The fish has a stream line shape.
16. Friction force slows down the object motion.
17. The two sides of heart are separated.
18. The heart contains valves.



19. Blood flows in one direction between atrium & ventricle inside the heart.
20. The wall of left ventricle is thicker than that of right one.
21. The blood is in a liquid form.
22. Blood capillaries have thin walls.
23. Red blood cells have great importance.
24. Blood platelets have a role in healing wounds.
25. White blood cells are called the defense cells.
26. Aorta is the largest artery in the body.
27. Blood is a very important fluid.
28. It is necessary to keep exercising.
29. Smoking must be avoided.
30. It is necessary to avoid exposure to infection & accidents.
31. The human body must get rid of excretory material.
32. The body cells release their wastes into the blood.
33. The skin is one of excretory organs.
34. The urinary system is very important.
35. The urinary system contains urinary bladder.
36. There are two ureters in the urinary system.
37. If the 2 kidneys are damaged, the person will die.
38. The 2 kidneys protect us from poisoning.
39. Man urinates less in summer than in winter.
40. Sweat has salty taste.
41. The presence of sweat glands inside the skin.



42. * You must not keep urine for a long periods.

* You must eat food low in salts.

43. You must not urinate or wash in irrigation canals.

2) Write scientific terms :

1. A force that slows down the moving object and has its effect in the opposite direction of the object's movement. (.....)

2. A set of small balls of smooth surfaces are put together between the internal surfaces of the moving objects of machines. (.....)

3. A friction force between air and the moving object through.

(.....)

4. A muscular organ, about the fist in size and located within the chest.

(.....)

5. The two lower chambers of the heart.

(.....)

6. The net work of pipelines that extend all over the human body.

(.....)

7. The artery that carries blood rich in carbon dioxide.

(.....)

8. The blood vessels that collect blood from all body parts and pour it into heart.

(.....)

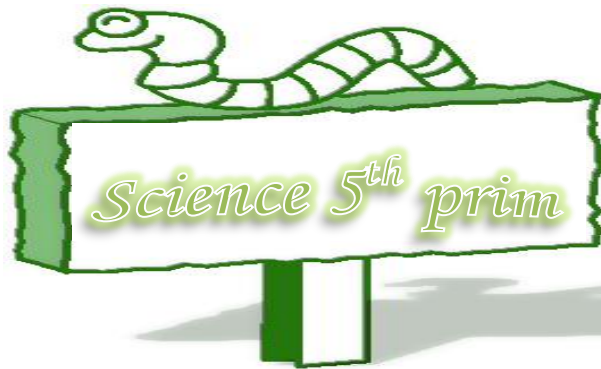
9. The small bodies that play a role in blood coagulation when the body is vounded.

(.....)

10. A yellow watery fluid in which blood cells float. (.....)

11. The flow of blood to the lungs and its returning back again to the heart.

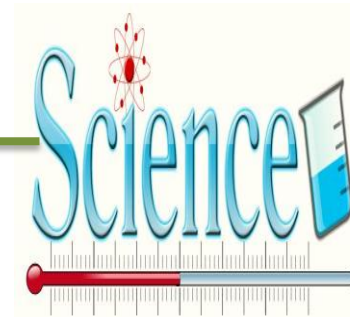
(.....)

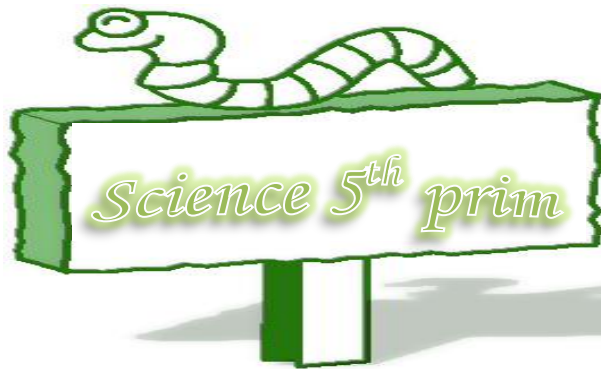


12. Blood circulation between the heart and all body parts except the two lungs.
(.....)
13. The group of organs that clarifies the body from wastes and harmful substances.
(.....)
14. The system that clarifies blood from excess salts, urea and uric acid.
(.....)
15. The two organs which excrete carbon dioxide and excess water in the form of a vapour.
(.....)
16. The fluid which the kidneys produces and contains harmful substance.
(.....)
17. The narrow tube which connects with the kidney and urine passes through it.
(.....)
18. The cells which carry oxygen.
(.....)
19. The artrey that carries oxygenated blood to all parts of the body.
(.....)
20. A friction force between water and the moving object through.
(.....)

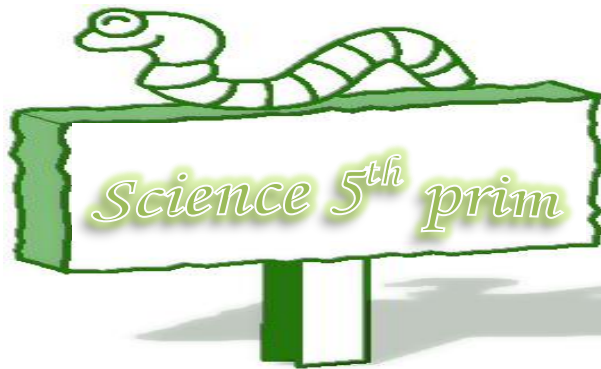
3) Complete the following sentences :

1. is used to decrease the effect of friction force between the internal moving parts of machines.
2. Friction force has its effect in the direction of the objects movement.
3. The force that slows down the objects is





4. The value of between two surfaces depends on the type of material of both surfaces.
5. Friction force has its effect in the opposite direction of
6. The friction force between the air & the object that moves through is called
7. The friction force between the water & the object that moves through is called
8. increases by the increase of the surface area of a moving object.
9. The force of acts in the direction of an objects motion.
10. Heart is located within the chest cavity between the
11. Heart beats cause to all body parts.
12. Heart is consisted of 4 chambers filled with and connected with
13. Blood flows inside a network of pipelines called
14. The blood vessels that emerge from the heart are called
15. blood cells carry O_2 & Co_2 inside the body.
16. keep body temperature constant.
17. Blood platelets form which help in healing.
18. Left ventricles pushes the blood into the
19. atrium receives blood from all body parts except the lungs.
20. The vessels that carry blood to the heart are called
21. There are a between atrium & ventricle on each side of the heart.



22. The tube, which extends from the bladder & opens out the body is called

23. When the left atrium contracts, it pushes the blood to the

24. All the arteries carry oxygen rich blood except

25. is a balloon like bag.

26. Blood consists of red blood cells & white blood cells,
..... and

27. Urine consists of water containing excess salt and
.....

28. When the blood is exposed to the air, a bloody is formed.

4) Put (v) or (x) & correct the wrong answer :

1. The friction force is always in the same direction of the object's movement.
()

2. The friction force between 2 surfaces is greater while moving than stopping.
()

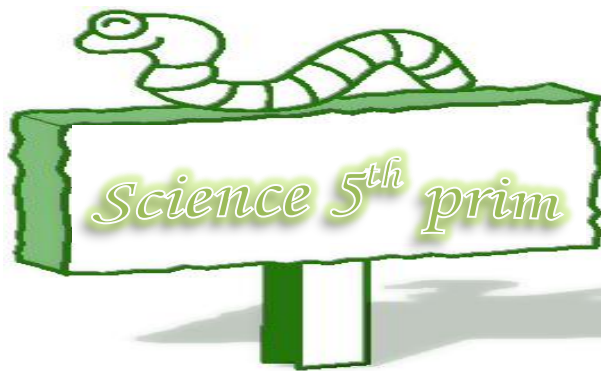
3. The moving car is affected by air resistance in the same direction of its movement.
()

4. When the friction force between the air and a car is equal to the force that moves it, the car moves at a constant velocity.
()

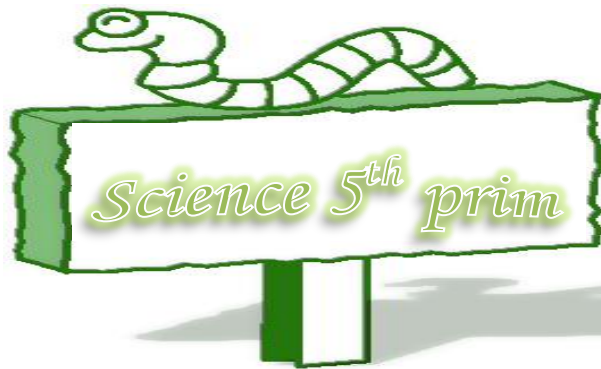
5. The relationship between the area of the object surfaces exposed to the air and the air resistance of its movement is an inverse relation.
()

6. The air resistance decreases when the car moves so fast.
()

7. When the parachute is opens his parachute, the friction force decrease.
()



8. The friction force affects in an opposite direction to the direction of motion. ()
9. The friction force depends on the shape of the surface of two touching objects. ()
10. Ball bearing are used to increase the friction force. ()
11. The pushing of an object forward is opposed by a friction force at the backward direction. ()
12. Oil is used to decrease the friction force. ()
13. When the affecting forces on a moving object are equivalent, the object continues in its motion with a constant velocity & in a straight line. ()
14. Air resistance to the objects move in high speeds can not observed. ()
15. There are valves within the heart cavity. ()
16. The aorta delivers blood to the lungs. ()
17. White blood cells defend the body against microbes. ()
18. Eating meals rich in fats and salt activate the circulatory system. ()
19. Keeping the urine and delaying getting rid of it, benefits urinary bladder. ()
20. The kidney filters excess water and salts from the human body. ()
21. Ureters is a tube that extends from the bladder to open outside of the body. ()



22. Eating diets rich in fats & salts activate the circulatory system.

()

5) Answer the following question :-

1. Mention the disadvantages of the friction force.
2. Mention the most important ways that can be used to decrease the disadvantages of friction force.
3. What happens if we drop two similar sheets of paper, one of them is folded & the other is unfolded? which one reaches the ground first? Give reason.
4. Why are road partitions made of cement?
5. If you push a marble on a glass surface & another similar one on a metal surface, which one will move for a longer distance? Why?
6. **State the function of the following :-**

The kidney - Urinary bladder - Ureter.

7. Write a brief account about each of the following :-

- | | | |
|--------------|------------|----------------------|
| (1) Friction | (2) Plasma | |
| (3) Aorta | (4) Sweat | (5) Water resistance |

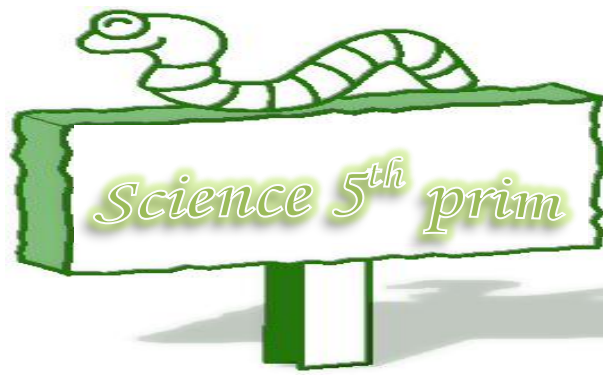
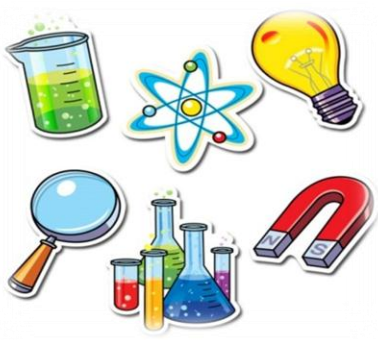
8. Choose the correct answer :-

1- Carbon dioxide & water vapor are released by the

- | | | |
|------------|----------|----------|
| 1) kidneys | 2) lungs | 3) heart |
|------------|----------|----------|

2- Urea is expelled by the

- | | | |
|----------|-----------|----------|
| 1) heart | 2) kidney | 3) lungs |
|----------|-----------|----------|



3- The heart is a muscular pump in a size of your

1) fingers

2) foot

3) fist

4- Blood vessels which carry blood from the heart are the

1) arteries

2) veins

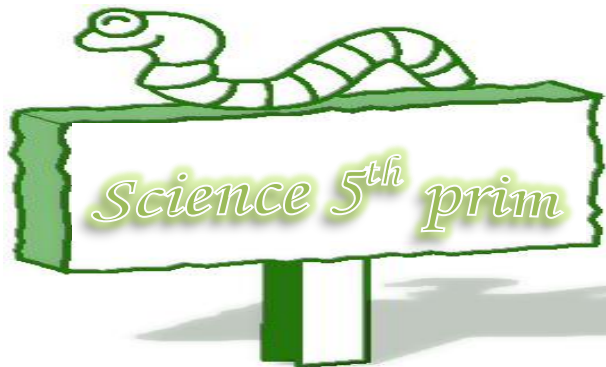
3) blood capillaries

5- Blood components which are responsible for attacking the microbes causing diseases to man are the

1) red blood corpuscles

2) white blood corpuscles

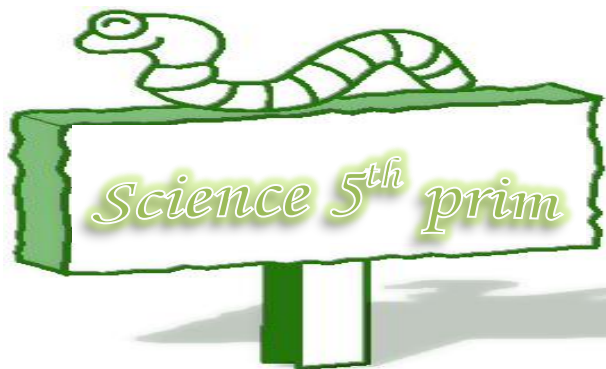
3) blood platelets



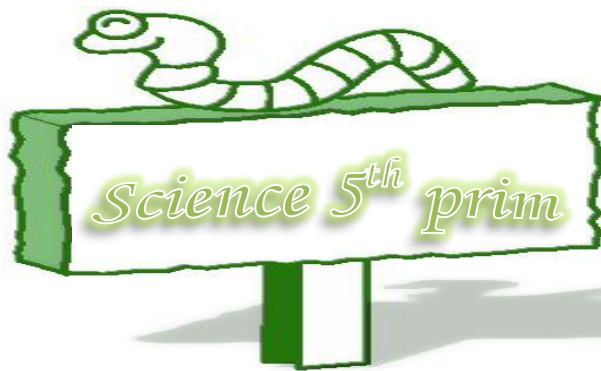
Unit (3)

1) Complete :

1. Soil is a thin layer covers
2. The main soil components are,,
3. add nutrients to the soil.
4. Water and break down rocks into small pieces.
5. The main types of soil are,,
6. soil is highly fertile because it contains large amount of
7. Clay soils color is while soil is yellow.
8. The compactness of clay soil iswhile in sand soil is
9. soil holds less water while soil hold more water.
10. The size of particles in sand soil is while clay soil is & in silt are
11. is considered the most suitable soil for cultivation because it contains
12. The aeration in sand soil is and in clay soil is while silt soil is



13. soil drains water more than other two types of soil.
14. , plants grow in clay soil while sand soil is suit for cultivating tubers such as,
15. Cactus plant are seen in soil.
16. Silt soil is suit for cultivating,
17. The important soil pollutants are,,
18. The origin of agricultural soil is Egypt in the rocks from the plateau.
19. The region in Egypt is considered as the best region for rice cultivation
20. The fertility of sand soil is & in silt soil is
21. The drainage of water in sand soil is but in clay soil is
22. In sand soil, the water absorption is but in clay soil is
23. The clay soil is mainly consists of & but silt soil is a mixture of,,,,
24. Humus is consists of,
25. Soil salinity increases by the effect of &
26. increase the soil acidity.

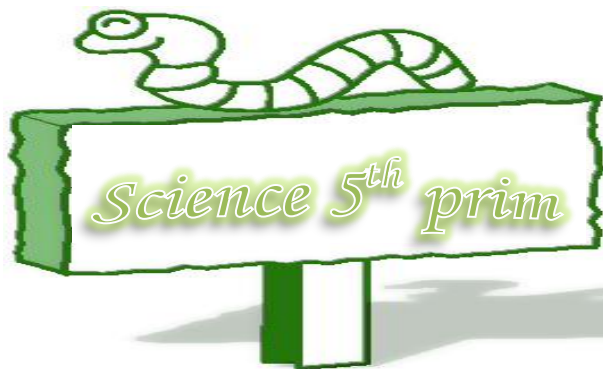


27. dissolves in the water rains forming that increase the soil

28. is the decayed remains of animals & plants mixed with soil components.

2) Write scientific terms :

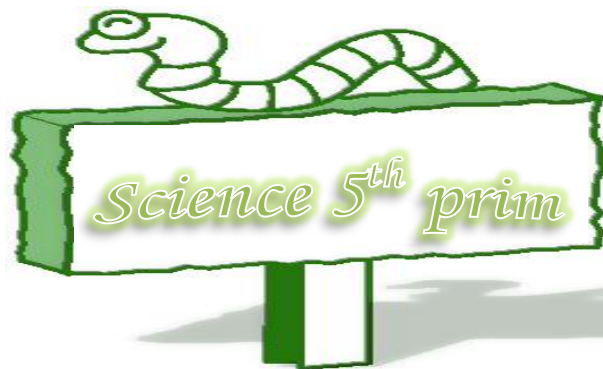
1. A thin loose layer covering the earth's crust. (.....)
2. The remains of the decayed organisms. (.....)
3. A highly fertile soil because it contains suitable dissolved salts and humus. (.....)
4. The most aerated soil. (.....)
5. The soil type rich with humus. (.....)
6. The remains of fragmented small rocks which was deposited on the earth's surface. (.....)
7. It's any change in the environment that disturbs it's natural balance. (.....)
8. It's any change in the soil that disturbs it's natural balance and harms it's living organisms. (.....)
9. A soil is mainly composed of clay and silt particles. (.....)
10. A soil is rarely contains humus. (.....)
11. The suitable soil for cultivation of plants that produce tubers. (.....)



12. Chemical substance used to compensate the poor of soil with element required for plant growth. (.....)
13. Materials that increase the soil acidity. (.....)
14. Rains formed when the industrial wastes dissolved in its water. (.....)
15. Chemical substances that eradicate the pests of agricultural crops. (.....)
16. Materials that disturbs the natural balance of the soil. (.....)
17. Used to protect from pollution instead of pesticides. (.....)

3) Give reason for :

1. The soil is the main component of the environment.
2. The color of soil is dark brown or black.
3. Roots of plants are important for soil.
4. The microorganisms that live inside the soil have great importance.
5. Soil differ in compactness according to their type.
6. The sand soil is well aerated.
7. The level of water in the clay soil is higher than the level of water in both sand and silt soil.
8. Silt soil fertility is the highest.



9. Clay soil has poor aeration.
10. Sand soil has good aeration.
11. Soil pollution are harmful.
12. Chemical pesticides are harmful.
13. The acidic rains have bad effect.
14. Increase soil salinity.
15. It is preferable to depend on natural enemies of insects inslead of pesheides.

4) Put (√) or (×) & correct the wrong answer :

1. Wheat plant grows in sand soil. ()
2. The spaces between the particals of clay soil are large. ()
3. Cactus plants are seen in sand soil. ()
4. Silt soil contains gravel, clay, sand, silt and humus. ()
5. Sand soil is more compacted than silt one. ()
6. Adding natural fertilizes leads to soil pollution. ()
7. Using insecticides to control agricultural pests protects the soil from pollution. ()
8. Spacing periods of irrigation leads to increase the validity of soil. ()



9. The pollution is any change in the environment that disturb its natural balance. ()
10. The sand soil is strongly compact, has poor ventilation and fertile. ()
11. Clay soil has poor ventilation. ()
12. Humus is the remains of fragmented small rocks and was deposited on the earth's surface. ()
13. Cactus plant grows in clay soil. ()
14. Clay soil suits cultivation of cotton and rice. ()



Model answer

1) Give reason :

1. Lubricants & oil are used in machines.

To decrease the friction force.

2. * Ball bearing are put between the surfaces of moving parts of machines.

* Using ball bearing in machines.

To decrease the friction force.

3. Ball bearing are designed to reduce the friction force.

Because they are formed of small metallic balls with smooth surfaces
so the friction between them is almost not found.

4. Rockets & air crafts have stream line shape.

To decrease air resistance.

5. Bodies of birds have streamline shape.

To decrease air resistance.

6. Birds stretch their wings on landing.

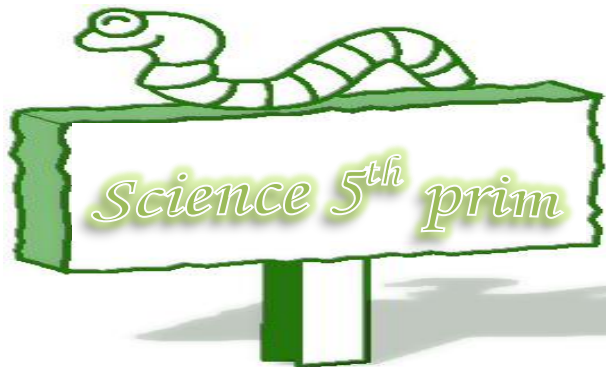
To increase the air resistance to land safely.

7. Parachutist open his parachute on landing.

To increase air resistance to land safely.

8. The friction depends on type of material surface.

Because friction increases between rough surfaces &
decrease between smooth surfaces.



9. The rise in temperature of internal parts of machines.

Due to friction force.

10. Friction force causes great economical loss.

Because it causes damage for most of machines so a lot of money is wasted.

11. Car drivers shouldn't increase the car speed up to a certain limit.

To decrease air resistance & also reduce the consumption of fuel.

12. Car tires should be replaced when their grooves disappear.

Because grooves are necessary to squeeze water out as water decrease the friction force & makes the control of car very hard.

13. Car tires have inscriptions.

To squeeze water out.

14. Car movement needs friction.

To control its speed.

15. The fish has a stream line shape.

To decrease water resistance.

16. Friction force slows down the object motion.

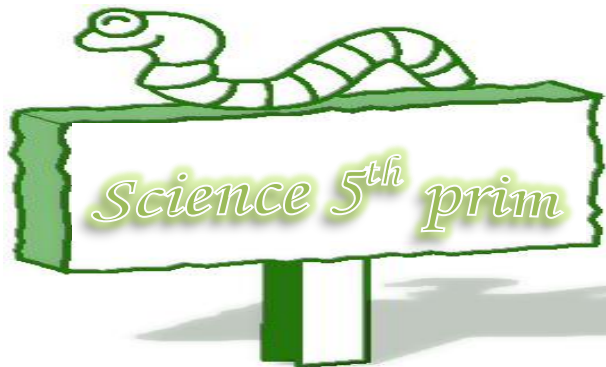
Because they act in opposite direction of movement.

17. The two sides of heart are separated.

To prevent mixing of blood.

18. The heart contains valves.

To allow blood to pass in one direction only, from atrium to ventricle not the opposite.



19. Blood flows in one direction between atrium & ventricle inside the heart.

Due to the presence of valve between each atrium & ventricle.

20. The wall of left ventricle is thicker than that of right one.

Because left ventricle pushes the blood to all body parts , while the right ventricle pushes the blood to the 2 lungs only.

21. The blood is in a liquid form.

To exchange food, oxygen to all body cells and wastes CO_2 gas from them.

22. Blood capillaries have thin walls.

To Exchange between food, oxygen and wastes, CO_2 gas.

23. Red blood cells have great importance.

Because they carry oxygen from the lungs to all body cells & CO_2 from the cells to the lungs.

24. Blood platelets have a role in healing wounds.

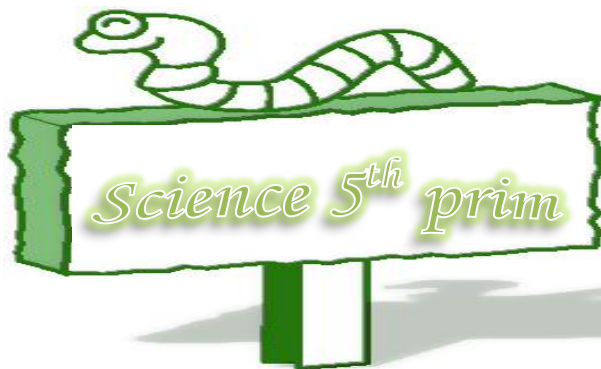
Because they form blood clot to stop bleeding.

25. White blood cells are called the defense cells.

Because they attack microbes.

26. Aorta is the largest artery in the body.

Because it carries blood from heart to all body parts.



27. Blood is a very important fluid.

Because it is necessary for :

- * The transfer of materials to all body cells.
- * The defence & protection of the body.

28. It is necessary to keep exercising.

To activate the blood circulation & to keep your circulatory system healthy.

29. Smoking must be avoided.

To keep your circulatory system healthy.

30. It is necessary to avoid exposure to infection & accidents.

To keep your circulatory system healthy.

31. The human body must get rid of excretory material.

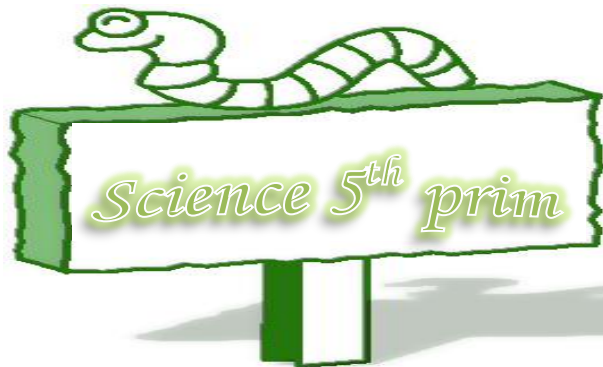
Because excretory material contain harmful poisonous materials and other harmless materials that the body can't use them.

32. The body cells release their wastes into the blood.

Because the blood carries these wastes to special organs to get rid of them.

33. The skin is one of excretory organs.

Because skin gets rid of some excess salts & excess water in the form of sweat.



34. The urinary system is very important.

Because :

- * It filters the blood from some excess salts, urea & uric acid & other waste material.
- * It expels these wastes outside the body in the form of urine.

35. The urinary system contains urinary bladder.

To store urine until it is released outside the body.

36. There are two ureters in the urinary system.

To transfer the excretory materials (urine) from the two kidneys to
The urinary bladder.

37. If the 2 kidneys are damaged, the person will die.

Because kidneys filter the blood from excretory materials which
contain poisonous materials.

38. The 2 kidneys protect us from poisoning.

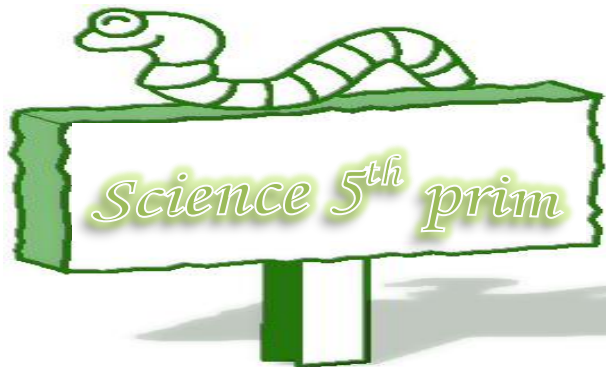
Because they filter the blood from urine which contains poisonous materials.

39. Man urinates less in summer than in winter.

Because we get rid of more sweat in summer due to high
temperature.

40. Sweat has salty taste.

Because it consists of some excess salts & excess water.



41. The presence of sweat glands inside the skin.

To get rid of some excess salts & excess water.

42. * You must not keep urine for long periods.

* You must eat food low in salts.

To keep your urinary system healthy.

43. You must not urinate or wash in irrigation canals.

To avoid infection with schistosomiasis disease.

2) Write scientific terms :

1. friction force

2. Ball bearing

3. air resistance

4. Heart

5. ventricles

6. Blood capillaries [blood vessels]

7. pulmonary artery

8. Veins

9. blood platelets

10. Plasma

11. minor blood circulation (pulmonary)

12. Systemic circulation (major)

13. excretory system

14. Urinary system

15. two lungs

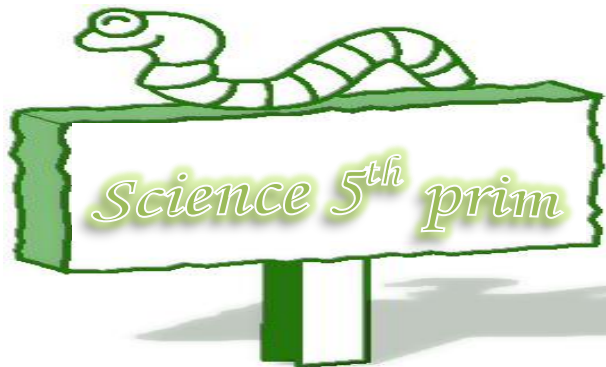
16. Urine

17. ureter

18. Red blood cell

19. Aorta artery

20. Water resistance

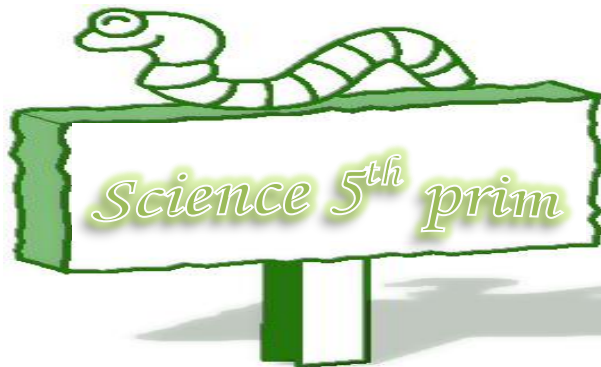


3) Complete the following sentences :

- | | | |
|---------------------------|----------------------|-------------------|
| 1-oil&lubricant | 2-opposite | 3-friction force |
| 4-friction force | 5-The movement | 6-air resistance |
| 7-water resistance | 8- friction force | |
| 9-motion(movement) force. | | |
| 10-2 lungs | 11-pumping the blood | |
| 12-blood-blood vessels | 13-blood vessels | 14-arteries |
| 15- red | 16-blood | 17-blood clot |
| 18-aorta | 19-right | 20-veins |
| 21-valve | 22-urethra | 23-left ventricle |
| 24-pulmonary artery | 25- urinary bladder | |
| 26-plasma-blood platelets | 27-urea-uric acid | 28-clot |

4) Put (√) or (×) & correct the wrong answer :

- | | | |
|---------------|--------------|-------------|
| 1-× opposite | 2- × smaller | 3-×opposite |
| 4- √ | 5- × direct | 6-×slow |
| 7- × increase | 8- √ | 9-× type |
| 10-× decrease | 11- √ | 12-√ |
| 13-√ | 14- × low | 15- √ |



- 16-x all the body cells 17-√ 18-x low
19-x harms 20- √ 21-x urethra
22-x harm

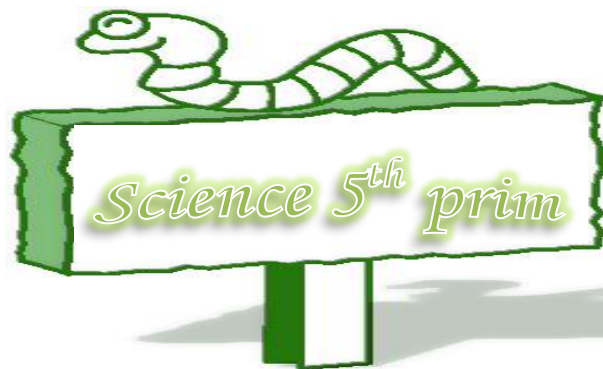
5) Answer the following question :-

- 1-
 1. Rise in the temperature of internal parts of machines.
 2. Damage of machines.
 3. A lot of money wasted.
- 2-
 1. Using lubricants & oils.
 2. Using ball bearing.
- 3- The folded paper reaches ground first.
 - Because by decreasing surface area, the air resistance decrease.
- 4- To decrease air resistance.
- 5-
 - The glass surface.
 - Because it is smooth, so it has less friction force.

6. **1- The kidney :** 1. Filter the blood from some wastes as
(urea, uric acid, excess salts).
2. Getting rid of wastes in the form of urine.

2- Urinary bladder : stores the urine temporarily until it is released outside the body through urethra.

3- Ureter : transfer the excretory materials from the two kidneys to the urinary bladder.



7. **1- Friction** : It is the force which exists between two surfaces when they touch each other and it affects in the opposite direction of movement.

2- Plasma : It is a yellow watery fluid in which all the blood components are suspended - carry digested food & wastes.

3- Aorta : It is a large artery that carry oxygenated blood from left ventricle to all the body parts.

4- Sweat : It consists of some excess salts & some other excretory products get out through sweat glands in the skin.

5- Water resistance : It is a type of friction force resulting from object movement in water.

8. Choose :

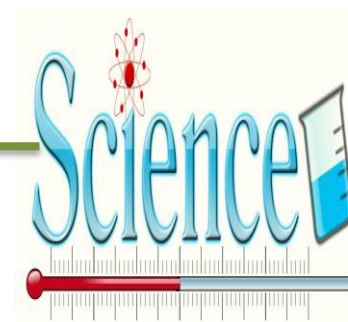
1- Lungs

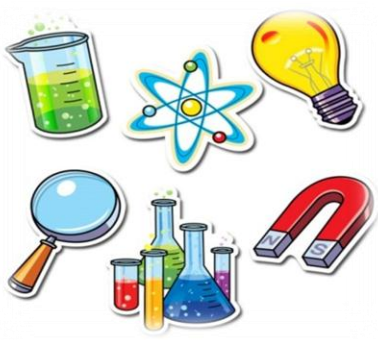
2- kidney

3- fist

4- arteries

5- white blood corpuscles

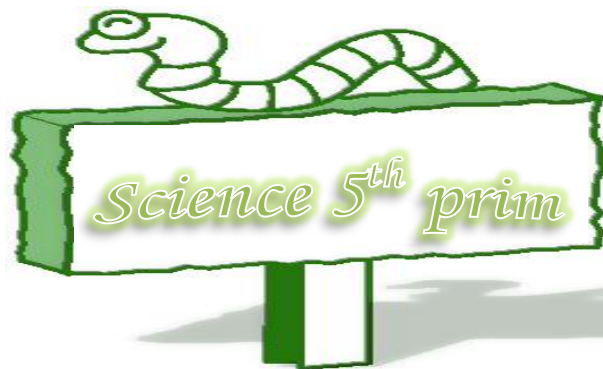
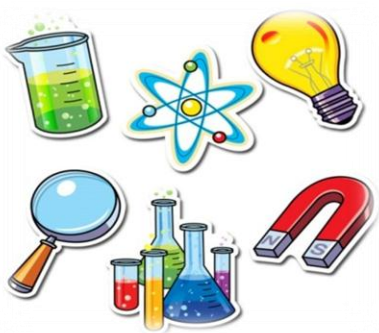




Unit (3)

1) Complete :

1. non compacted superficial - Earth's crust
2. humus - mud (clay) - sand
3. humus
4. wind , heat
5. sand - clay - silt
6. silt - humus
7. dark - sand
8. strong - weak
9. sand - clay
10. large - small - medium
11. silt - more humus
12. good - poor - medium
13. sand
14. rice , wheat - potato , sweet potato
15. sand
16. lemon , orange
17. chemical pesticides , chemical fertilizers , industrial wastes



18. Ethiopian

19. delta

20. less fertile - high fertile

21. fast - slow

22. low - high

23. (clay & silt) - gravel - humus - sand - clay - silt

24. decayed remains of animal & plants

25. spacing period of irrigation , raising the level of ground water

26. acidic rain

27. acids - acidic rain - acidity

28. humus

2) Write scientific terms :

1. soil

2. Humus

3. silt soil

4. Sand soil

5. silt soil

6. soil

7. Pollution

8. soil pollution

9. Clay soil

10. sand soil

11. sand soil

12. chemical fertilizers

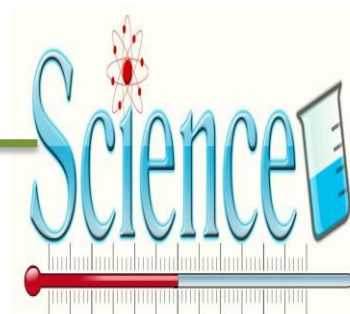
13. Acids

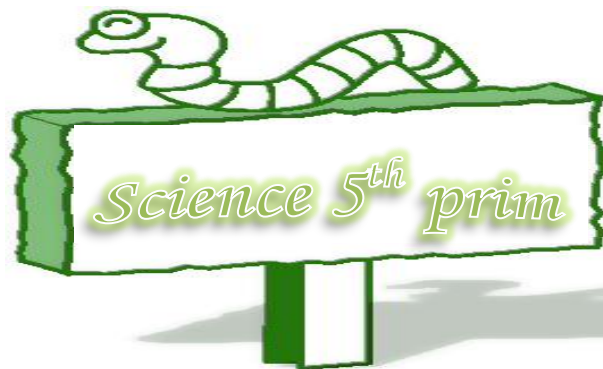
14. acidic rains

15. Chemical pesticides

16. soil pollutants

17. Natural enemies





3) Give reason for :

1. The soil is the main component of the environment.

Because it is necessary for :

- plant growth
- animals and human that eat these plants
- some animals as they make their homes in soil

2. The color of soil is dark brown or black.

Due to the color of humus.

3. Roots of plants are important for soil.

Because : 1- roots hold the soil in it's place

2- they add nutrients to soil as they convert into

Humus after death

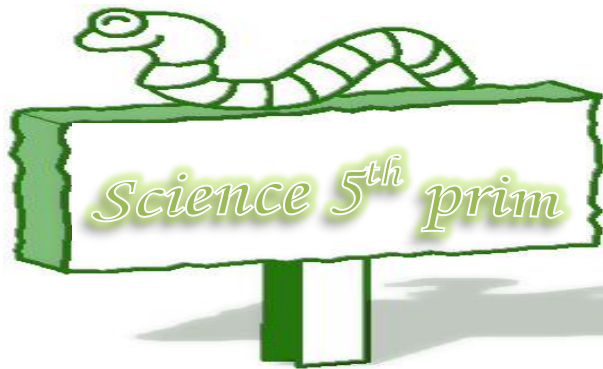
3- prevent soil erosion

4. The micro organisms that live inside the soil have great importance.

Because : 1- they dig tunnels , so this allow air and water to pass easily through soil

2- when they die their bodies decay forming

Humus



5. Soil differ in compactness according to their type.

According to the difference in their components & ability to hold water.

6. The sand soil is well aerated.

Because it has weakly compacted particles.

7. The level of water in the clay soil is higher than the level of water in both sand and silt soil.

Because clay soil has the highest absorption of water than silt and sand soil since particles of clay soil are highly compacted.

8. Silt soil fertility is the highest.

Because it is rich in humus.

9. Clay soil has poor aeration.

Because its particles are highly compacted.

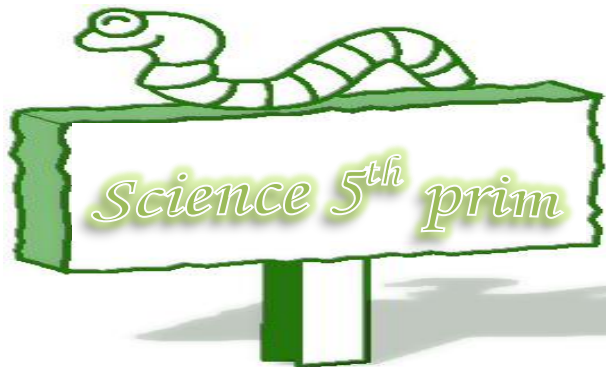
10. Sand soil has good aeration.

Because it is weakly compacted.

11. Soil pollution are harmful.

Because they :

- 1- reduce the ability of the agricultural soil for cultivation*
- 2- cause the death of plants*
- 3- harm the human and animals health*



12. Chemical pesticides are harmful.

Because they contaminate plants as they leak in the soil and harm human and animals health.

13. The acidic rains have bad effect.

Because they increase the soil acidity and deprive plants from the soil salts that are necessary for plant growth.

14. Increase soil salinity.

Due to increasing the periods between the irrigation times and rising of ground water.

15. It is preferable to depend on natural enemies of insects instead of pesticides.

To avoid using of soil pesticides which cause soil pollution.

4) Put (v) or (x) & correct the wrong answer :

- | | | |
|--------------------------|-------------------|-------------------|
| 1. (x) clay | 2. (x) sand | 3. (v) |
| 4. (v) | 5. (x) less | 6. (x) chemical |
| 7. (x) natural enemies | 8. (x) decrease | 9. (v) |
| 10. (x) clay | 11. (v) | |
| 12. (x) soil | 13. (x) sand | 14. (v) |

Good Luck