1. Which one of the following DOES NOT have chemical energy?
   A. Lemon.
   B. Kerosene.
   C. Charcoal.
   D. Dynamo.

2. The diagrams below were drawn by different groups of pupils to show how images are formed in a pinhole camera.

A. 

B. 

C. 

D. 

Which one is CORRECTLY drawn?

3. The diagram below represents a circuit with four bulbs labelled W, X, Y and Z.

Battery

Switch

What would happen to bulbs X, Y and Z if W was removed?
   A. X, Y and Z would become dim.
   B. X, Y and Z would go off.
   C. X would go off, Y and Z would become brighter.
   D. X would become dim, Y and Z would become brighter.

4. Which one of the following structures make up the female part of a flower?
   A. Anther, style, ovary.
   B. Stigma, filament, ovary.
   C. Anther, filament, ovary.
   D. Stigma, style, ovary.

5. Which one of the following DOES NOT describe pollination?
   A. The transfer of pollen grains from the anther to the ovary of same flower.
   B. The transfer of pollen grains from the anther to the stigma of a different flower.
   C. The transfer of pollen grains from one flower to another flower on the same plant.
   D. The transfer of pollen grains from one flower to another flower on a different plant of the same kind.

6. Which one of the following statements is true about ALL insects? They:
   A. undergo complete metamorphosis.
   B. breathe through spiracles.
   C. have proboscis.
   D. have wings.

7. Which one of the following plants stores its food in the root?
   A. Groundnuts.
   B. Cassava.
   C. Irish potato.
   D. Onion.

8. Which one of the following is TRUE about reptiles and amphibians? They have:
   A. scales.
   B. gills.
   C. varying body temperature.
   D. external fertilisation.

9. Which one of the following is a chemical change?
   A. Melting of candle wax.
   B. Rusting of iron nails.
   C. Evaporating spirit.
   D. Water changing to ice.

10. A bowl made of iron may float when placed in water because of its
    A. weight.
    B. shape.
    C. size.
    D. density.
11. The diagram below represents a set up that can be used to demonstrate a certain process.

- Glass jar
- Water
- Sand
- Heat

The process demonstrated is
A. convection
B. conduction
C. diffusion
D. radiation.

12. Standard Eight pupils were provided with liquids P, Q, R, S and T that were either neutral or acidic. They were asked to mix two liquids at a time and use hibiscus flower juice to test whether the mixture was acidic or not. The results obtained are shown in the table below.

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>P + Q</td>
<td>Red</td>
</tr>
<tr>
<td>P + R</td>
<td>No change</td>
</tr>
<tr>
<td>R + S</td>
<td>Red</td>
</tr>
<tr>
<td>R + T</td>
<td>No change</td>
</tr>
<tr>
<td>P + T</td>
<td>No change</td>
</tr>
<tr>
<td>Q + T</td>
<td>Red</td>
</tr>
<tr>
<td>Q + R</td>
<td>Red</td>
</tr>
</tbody>
</table>

Which two liquids were acidic?
A. Q and S.
B. T and S.
C. R and T.
D. P and Q.

14. Using a base and an indicator, the strength of an acid can be determined by
A. the time it takes the indicator to change colour
B. the intensity of the colour change with the indicator
C. the number of drops required to change colour of the indicator
D. the colour of the indicator.

15. The diagram below shows the positions of fulcrum, effort and load in a lever.

![Lever Diagram]

Which one of the following pairs of levers has the same arrangement as that of the lever shown above?
A. Pair of scissors and wheelbarrow.
B. Pliers and nutcracker.
C. Spade and fishing rod.
D. Bottle opener and claw-hammer.

16. The diagram below represents a single movable pulley used to lift a load.

![Pulley Diagram]

Which one of the following statements is TRUE about what happens when the effort moves up?
A. The distance the load moves is equal to the distance effort moves.
B. The effort applied is equal to the load.
C. The distance the effort moves is twice the distance the load moves.
D. Work done on the load is equal to work done by the effort.

17. In which one of the following parts of a bicycle is friction NOT required?
A. Seat.
B. Axle.
C. Handle.
D. Pedal.
18. Which one of the following waste products DOES NOT require processing before recycling?
A. Waste paper.
B. Scrap metal.
C. Dirty used water.
D. Rice husks.

19. Which one of the following is polluted MOST when a farmer uses pesticides excessively?
A. Crops.
B. Air.
C. Soil.
D. Water.

20. The diagram below represents the solar system.

The planet marked X is.
A. Mars
B. Venus
C. Earth
D. Mercury.

21. The diagram below shows a weather instrument.

The instrument is used for measuring
A. direction and strength of wind
B. speed and direction of wind
C. speed and pressure of wind
D. pressure and strength of wind.

22. Which one of the following determines the rate at which water drains through the soil?
A. Size of particles of the soil.
B. Humus content of the soil.
C. Mass of the soil.
D. Air content of the soil.

23. The set ups below were used to determine capillarity in soil samples E, F, G and H.

The correct conclusion cannot be drawn from the results of this experiment because
A. soil types were different
B. tubes were placed in different troughs
C. troughs were of different sizes
D. tubes were of different sizes.

24. Which one of the following contains a weakened form of disease causing germs?
A. Stimulant.
B. Vaccine.
C. Herbal extract.
D. Depressant.

25. Which one of the following is NOT an effect of cigarette smoking?
A. Heart attacks.
B. Discoloured teeth.
C. Air pollution.
D. Restlessness.

26. The diagram below shows how a liquid flows out a can with a hole at the bottom.

Which one of the following will make the liquid flow out smoothly?
A. Making another hole at the top.
B. Shaking the can.
C. Increasing the size of the hole.
D. Raising the container to higher level.
27. The diagram below shows the beak of a certain bird.

The bird most likely feeds on
A. fish
B. nectar
C. insects
D. seeds

28. The chart below shows a simple classification of plants.

<table>
<thead>
<tr>
<th>Plants</th>
<th>With flowers</th>
<th>Without flowers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pea</td>
<td>Mushroom</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td>Y</td>
</tr>
</tbody>
</table>

Which one of the following pairs represent X and Y?

A. Fern, Algae
B. Wheat, Cypress
C. Bean, Maize
D. Moss, Pawpaw

29. Diagrams J, K, L and M represent fruits and seeds.

Which one of the following shows the correct method of their dispersal?

A. Water, Animal, Animal, Wind
B. Animal, Self, Water, Wind
C. Self, Animal, Wind, Animal
D. Water, Wind, Animal, Self