



Subject: Grade 5 Natural Sciences

Topic: Natural Sciences: Term 2 - Exam 1

Total: 99 Marks

1. light 3 marks

Explanation:

We need light to see. Light bounces off an object and enters our eye which captures the light and forms an image.

2. weaker | are 4 marks

Explanation:

Gas particles are able to move around freely, while the particles of a liquid can only slide over each other.

3. copper 3 marks

Explanation:

Ductile means that a substance can be drawn (stretched) to form a wire.

Steel is much harder than copper, so it will not be as ductile as copper.

Glass is not ductile at room temperature. Glass can be drawn into a wire, but only at a very high temperature.

Copper is ductile at room temperature.

4. B: concrete 4 marks

Explanation:

When mixed with water, the ingredients set to form a very strong material, namely concrete. It is used for building foundations, roads and pillars in frame structures.

5. rust | iron oxide 3 marks

Explanation:

The iron reacts with the oxygen in the air, especially when there is moisture present. The substance that forms, is called **rust**.

6. false 2 marks

Explanation:

Animals such as insects, fish, frogs and turtles bury or hide their eggs to keep them safe, but they **do not** stay close to their young after they are born.



7. hopper | nymph 4 marks

Explanation:

It is the stage between the egg and full-grown insect.

8. C: chips of wood 4 marks

Explanation:

Cement powder and jelly powder will mix with the water. The ice will melt in the water, but the wood chips will simply float on top of the water.

9. vibrations | vibration 3 marks

Explanation:

When a sound is made, the air moves causing vibrations which travel through the air into your ears.

10. C | shoulder blades 4 marks

Explanation:

The skeleton of vertebrates is very similar to each other. You can identify the skull, spine (backbone), ribs, etc. They serve the same purpose in animals as they do in humans.

11. adult | adult mosquito 3 marks

Explanation:

The adult must rest on the surface of the water to allow its wings to dry and body to harden before it flies away.

12. extinct | extinction 3 marks

Explanation:

When reproduction does not happen as fast as a species is dying, the species has the risk of becoming **"extinct"**.

The dodo bird is an example of an animal that has become extinct. We do not find dodo birds anywhere in the world.

13. true 2 marks

Explanation:

Glass is made from silica, found in sand. We say it's brittle, because if beaten with a hammer, it will shatter.

14. mix the ingredients | a paste is formed | fill cracks | let the mixture set 8 marks

Explanation:

When Polyfilla is mixed with water, it forms a soft paste. It is easily squeezed into cracks and holes into a wall. When it dries, it becomes hard.

15. A: 3 ; 4 ; 1 ; 2 4 marks

Explanation:

All plants start out as seeds that were dispersed in the wind. Once it lands on suitable soil, the embryo inside the seed will grow (germinate) into a plant - called a germinating seed (also known as a seedling). Eventually it will grow into an adult plant which will flower and then produce fruit, which contains the seed for the cycle to begin all over again.

16. gelatine | geletine | gelatin | pectin | pectins 3 marks

Explanation:

Jelly is a mixture of sugar, artificial flavourants and **gelatine**. The gelatine, a white powder, causes the jelly to set.

17. true 2 marks

Explanation:

Flexibility is a measure of how easily a material can bend. Waterproof is a property of a material to resist liquids or repel water.

18. paste 3 marks

Explanation:

An example of a paste would be toothpaste.

19. Sun | ocean | air | plants | plant | producers | producer 3 marks

Explanation:

The sun is the source of all energy on earth. The energy is used by plants to produce food. The energy is passed on when animals (herbivores) eat plants. Other animals (carnivores) then receive energy from eating those animals.

20. false 2 marks

Explanation:

An **alloy** is a mixture of two or more metals, or a metal with a non-metal.

21. B: boil, leaving salt crystals behind 4 marks

Explanation:

The heat causes the water to change from a liquid to a gas, leaving the salt crystals behind.

22. D: strength in tension 4 marks

Explanation:

Strength in tension is a measure of a material's ability to withstand a pulling force. An elevator cable or the cables of a suspension bridge must be able to withstand tension and therefore have a high level of strength in tension.

23. bend | tighten

4 marks

Explanation:

Remember that the muscles are attached to the bones in the body. The muscle is called the bicep. When the bicep tightens, it pulls the lower arm bones towards the shoulder in order for the arm to bend.

24. true

2 marks

Explanation:

If it is not turned, the yolk floats through the albumen, forces the egg cell against the shell and kills it.

25. muscle | muscles

3 marks

Explanation:

Muscles are attached to the bones of the body. The muscles and the joints in the body enable the body to move. The muscles are the strength needed to move the body.

26. C: copper and zinc

4 marks

Explanation:

An **alloy** is a mixture of two or more metals. **Copper and zinc** are mixed to make brass.

27. true

2 marks

Explanation:

When the solution boils, the water changes from liquid to gas and leaves the beaker. The solid sugar crystals will be left behind.

28. false

2 marks

Explanation:

The fingers are not organs. The fingers are part of the limbs. A finger is a limb of the human body and a type of digit, an organ of manipulation and sensation found in the hands of humans and other primates.

29. tension | pulling

4 marks

Explanation:

A material that can withstand strong pulling forces, has a high level of strength in tension. A tow bar must be able to resist pulling forces and therefore has a high level of strength in tension.

30. pollination | pollinating | pollinate | pollinated | pollinates

3 marks

Explanation:

Pollination usually occurs naturally and most often it is due to insects, birds and small mammals.

