

# Key stage 3 – Science Practice Test – MCQ

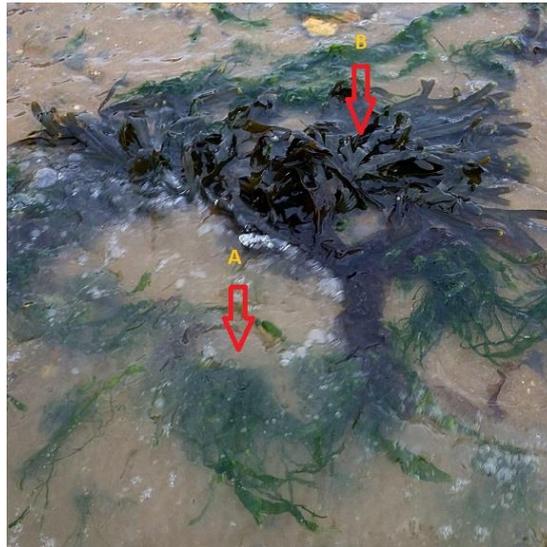
## 2015

TIME: 1 HOUR

NAME:

MARKS:

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Picture taken by SMM

Use the above picture to answer **Qu-1 to 3**

- The above picture is showing the presence of sea plants called green and brown algae in the sea water. Both algae do not have root system and able to float in sea water using air sacs. Identify one more feature in both algae to float in the sea water?
  - Leaves
  - Large surface area
  - weighing heavy
  - None
- What process can help those algae to get nutrients from sea water?
  - Photosynthesis
  - Respiration
  - Diffusion
  - None of them
- Which Kingdom does Alga **A** represent in the classification?
  - Animalia
  - Fungi
  - Protocista
  - Plantae



Picture taken by SMM

Use the above picture to answer **Qu-4 to 6**

4. The above diagram shows a fly feeding on nectar of a flower. Why do some flowers possess nectar?
  - a. To produce scent
  - b. To produce honey
  - c. To produce pollen
  - d. None of them
5. What causes this fly to bear the stripes in its body like a wasp?
  - a. Mutation
  - b. Natural selection
  - c. Competition
  - d. All of them
6. A student called Suren says “visiting of this fly to our gardens is good for flowering plants as honey bee population is dramatically declined in UK in recent years”. What would be a good reason behind his statement?
  - a. It helps in pollination
  - b. It helps in feeding the nectar
  - c. It helps gardens look beautiful
  - d. None of them



Picture taken by SMM

Use the above picture to answer **Qu-7 to 10**

7. This picture shows a....., (Pick an answer “concerning about environment”)
  - a. Bag
  - b. Tree
  - c. Leaf less branch
  - d. Plastic bag pollution
8. What is a good way to encourage the people to reduce plastic bag usage?
  - a. 5p Charge
  - b. Recycling
  - c. Acknowledging people about damage caused by Plastic bags
  - d. All of them
9. A student called Mithurjan says “plastic bags in trees may reduce local birds’ populations” Pick a suitable reason for his statement?
  - a. They scare birds
  - b. They kill birds
  - c. They poison the eggs
  - d. All of them
10. The plastic bags are,----- (Pick a very suitable word to fill in the blank)
  - a. Hard
  - b. Biodegradable
  - c. Non-biodegradable
  - d. Too expensive
11.  $MgSO_4$  (Magnesium sulphate) can dissolve in water and the presence of  $Mg^{2+}$  ions in normal water makes it hard water. The solubility of Magnesium sulphate depends on
  - a. Temperature
  - b. Amount of Solvent
  - c. a & b
  - d. None of them

12. A student called Dishaan told his big brother that the petrol is extracted from crude oil which is consisted of mixture of various hydro-carbon molecules. What method can be used up to extract the petrol from crude oil?

- a. Filtration                      b. Distillation    c. Evaporation    d. Fractional distillation



Picture taken by SMM

Use the above picture to answer **Qu-13 to 15**

13. When Master makes an Indian curry for his dinner, he mixes some spicy flavour in powdered form. This powdered Spicy flavour is mainly obtained from plant chemicals. What method would you use to identify how many chemical substances mixed in (qualitatively) master's powdered spicy flavour?

- a. Evaporation                      b. Crystallisation                      c. Distillation                      d. Chromatography

14. The above cooking is a/an..... (Pick suitable word to fill in the blank)

- a. Irreversible chemical process                      b. Reversible chemical process                      c. No chemical process                      d. All of them

15. When you cook food in gas oven, a hydro-carbon compound reacts with oxygen in air to produce heat and a blue flame. This reaction is called?

- a. Complete combustion                      b. Incomplete combustion                      c. Combustion                      d. None

16. Pick right series of alkaline earth metals?

- a. Mg C Ca                      b. Li Na K                      c. Be Mg Ca                      d. Na K Cs

17.  $y \text{ Ca} + \text{O}_2 \rightarrow x \text{ CaO}$ , In this balanced equation x and y represent respectively,

- a. 2, 1                      b. 2,0                      c. 1,1                      d. 2,2

18.  $\text{CaO} + \text{H}_2\text{O} \rightarrow$  compound Y, where Y is,

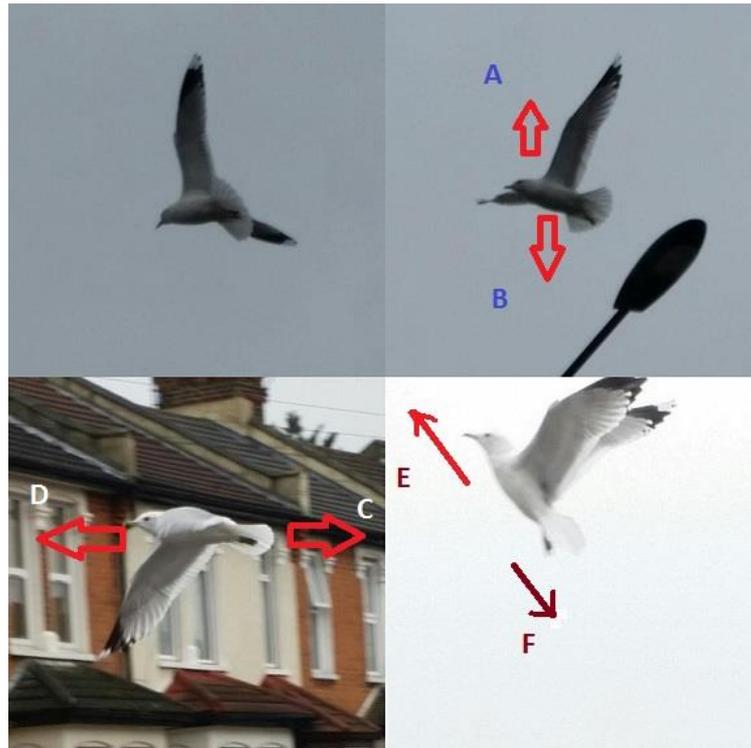
- a. CaOH                      b. CaO<sub>2</sub>                      c. Ca<sub>2</sub>OH                      d. Ca(OH)<sub>2</sub>

19. A student called Shakana told Master that sodium chloride crystal can conduct electricity, even in solid state, The statement of that student is,

- a. Sometime wrong                      b. Wrong                      c. Sometime correct                      d. Always correct

20. When gas molecules occupy in a container they exert a pressure? This is due to

- a. Particle collisions                      b. Particle collisions with wall of container                      c. a&b                      d. None



Picture taken by SMM

Use the above picture to answer **Qu-21 to 24**

**(Mass of this bird 1200g, Gravity of Earth 10 N/kg)**

21. Forces A and B indicate respectively,  
a. Mass & Drag   b. Weight & Reaction force   c. Drag & Weight   d. Mass & Reaction force
22. When bird flies at constant speed, Forces C and D are,  
a. Balanced   b. Not balanced   c. Accelerating   d. Decelerating
23. If Forces E and F are 3.5 N and 2.3N respectively, Find the acceleration of this bird when it claims up, (assume that only Forces F and E act on the bird in that particular occasion)  
a.  $3.5 \times 1200 \text{ N/kg}$    b.  $0.01 \text{ N/kg}$    c.  $1.2 \text{ N/kg}$    d.  $1.0 \text{ N/kg}$
24. The bird at the bottom left is flying at 10 m/s constant speed and at 5 m height above the ground, Find total energy it has at that moment, (Use the following equations appropriately  $GPE=mgh$ ,  $KE= 0.5 \times m \times v^2$ )  
a. 120 J   b. 60J   c.120kJ   d. None of them
25. Heat waves are.....,(Pick suitable word to fill in the blank)  
a. IR radiation   b. UV radiation   c. Visible light   d. Microwaves
26. "Light travels at different speed in different medium", This statement is,  
a. False   b. Correct in Space   c. Correct   d. None of them



Picture taken by SMM

Use the above picture to answer **Qu-27 to 29**

(Speed of sound in air 340 m/s, Speed of sound= frequency X wavelength, Frequency = 1/Time)

27. This bird was singing for its owner when he was standing 170 cm away from its cage. Find out the frequency of this bird's singing, (assume a complete wave reached him during that time period)
- a. 200Hz    b. 0.2Hz    c. 2Hz    d. 0.5 Hz
28. What is the wavelength of this bird's singing?
- a. 1700 m    b. 340 m    c. 1.7 cm    d. 1.7 m
29. When this bird flew, its pair of wings exerted 10 Pa pressure on air. The total area of pair of wings is  $0.5\text{m}^2$ , Find out Force exerted by this bird?
- a. 20 N    b. 0.5 N    c. 5N    d. None of them
30. The unit of momentum (Mass x Velocity) is,
- a. Nm/s    b. N/ms    c. kgm/s    d. N/kg

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**End of This Test**

**Student's Comment:** -----

**Parent's Signature:** -----