



DELHI WORLD PUBLIC SCHOOL
RAJKOT



Class - _____



"Summer holidays are a time for kids to explore the world, create memories, and fill their days with laughter and adventure. It's a break from routine, a chance to play freely, and an opportunity to let their imaginations run wild!"
Dear Parents, as the summer holidays approach, we want to ensure that the break is enjoyable, relaxing, and productive for your child. While it's important for children to rest and recharge, summer is also an excellent time to encourage learning in a fun and engaging way. To help your child stay on track and keep their skills sharp.





DELHI WORLD PUBLIC SCHOOL RAJKOT

Holiday Home Work



Session 2025-26

Hey Kids !

Summer Vacation is a welcome break..... Break from fixed schedule, rules & regulations of school, freedom from Teachers and time table. Freedom brings more responsibility, Keeping this in mind, we have planned most of the activities for you to keep you engaged positively and your energies well directed. Though teachers will not be physically present to keep a supervisory eye on you and your work. Guardian Angels at home i.e. your dear mama and papa are there to take care of your emotional, social, physical & academic needs.

We hope your home work and activities will be well managed and presented so that all of you earn a golden star★ as a grade.

We wish you a wonderful time ahead!

Good Habits and Good Manners are life long assets and manners must be practiced until they become a habit.

Four magic words that are basics of good manners are - **Please, Thank you, Excuse me and Sorry.** Make these four words a habit and see the difference.

MANNERS:

At home:

- ⊕ Help to keep the house clean especially the areas you use. Clear the toys, books or crafts that remain after you have finished.
- ⊕ Honesty is the best policy. Tell the truth at all times.
- ⊕ Be polite.
- ⊕ Share the T.V time. Do not sit too close while watching T.V.
- ⊕ Be fair with your friends, brothers and sisters.
- ⊕ Be responsible.



At the dining table:

- ⊕ Take small helpings and refill, clean your plate up.
- ⊕ Take small bites, eat neatly, slowly with your mouth closed.
- ⊕ Help to clear the table and clean up.

In the Park:

- ⊕ Littering makes the park untidy.
- ⊕ Destroying the plants or plucking the flowers will spoil the beauty.
- ⊕ Wait for your turn on swing and slides.



At a party:

- ⊕ Wish the host.
- ⊕ Don't mess up somebody's house.

While shopping:

- ⊕ Softly ask your parent for what you want. If refused, don't throw a tantrum.
- ⊕ Be careful, don't touch any breakable item.



On the telephone:

- ⊕ If there are no elders around, don't let the phone ring long, answer it.
- ⊕ Talk softly when someone is speaking on the phone and don't interrupt.



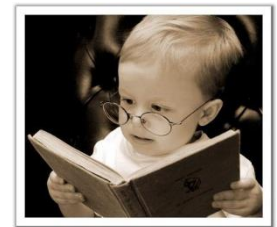
Hygiene:

- ⊕ Brush your teeth twice a day.
- ⊕ Do trim your nails often.
- ⊕ Do not waste water and electricity.
- ⊕ Keep your surroundings and environment clean. It is bad habit to throw things out of the window, car or a balcony.
- ⊕ Make friends having good habits who respect their elders and use good language.



Dear Parents Please ensure the child:

- ⊕ Speaks in **English** as far as possible.
- ⊕ **Read** picture books or story books.
 - Suggestive Series : Noddy, Bubbles , Lady Bird.
- ⊕ Listens to stories told by family members and tries to narrate stories.
- ⊕ Draws and colours pictures often.
- ⊕ Helps in small household jobs like watering plants, laying the dining table, making the bed, arranging books etc.
- ⊕ Is allowed to socialize with family, friends and relatives.
- ⊕ Watch TV only for limited hours and limited channels.
- ⊕ Learns to be self - sufficient by learning to cover books, tie shoe laces, comb hair etc.
- ⊕ Plays some outdoor games, goes for morning and evening walk and exercises regularly.
- ⊕ Sits for his/her studies regularly and completes the holiday Home Work and prepares for the forthcoming Cycle Tests.



We share this world with everybody who lives on this planet. Every small act of ours has an effect on this world. We must learn to take care of our world and make it a better place.

Working together,

Principal



Having spent some time in your new class, you have somewhat got used to the pattern of work in class . You have new challenges to meet and targets to achieve! Hope you have a great time with your family and friends during these holidays. Try everything that helps you enjoy this summer and keeps you in good health as well. Here are some activities designed for you to keep you at your creative best while you stay in your homes, beating the summer heat. These are simple activities that you would love to do on your own. Of course, you could ask your parents for some help.



Holiday Homework

Class:11 Sci. - Maths

1. Write the following sets in the set-builder form.

(i) $A = \left\{ \frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{6}{7}, \frac{7}{8}, \frac{8}{9} \right\}$

(ii) $B = [8, 27, 64, 125, 216]$

(iii) $C = \left\{ \frac{1}{2}, \frac{2}{5}, \frac{3}{10}, \frac{4}{17}, \frac{5}{26}, \frac{6}{37}, \frac{7}{50} \right\}$

(iv) $D = \{-1, 1\}$

(v) $E = \{x : x \in \mathbb{N} \text{ and } x^2 = x\}$

2. Write the following sets in the Roster form

(i) $A = \{x : x \text{ is an integer, } x^2 \leq 9\}$

(ii) $B = \{x : x \text{ is a perfect square and } x < 50\}$

(iii) $C = \{x : x \in \mathbb{R} \text{ and } x^2 + x - 12 = 0\}$

(iv) $D = \{x : x \in \mathbb{Z} \text{ and } -\frac{1}{2} < x < \frac{13}{2}\}$

(v) $E = \left\{ x : x = \frac{1}{(2n-1)}, n \in \mathbb{N} \wedge 1 \leq n \leq 5 \right\}$

(vi) $F = \{x : x \in \mathbb{Z} \text{ and } |x| \leq 2\}$

3. Show that $\{0\}$ and $\emptyset$ are not equivalent sets.

4. Write all the possible subsets of $\{1, \{2, 3\}\}$

5. If $A = \{x : x = 3n, n \in \mathbb{Z}\}$ and $B = \{x : x = 4n, n \in \mathbb{Z}\}$ then find $A \cap B$.

6. If $A = (2, 4)$ and $B = [3, 5)$, find $A \cap B$.

7. If $A = \left\{ \frac{1}{x} : x \in \mathbb{N} \wedge x < 8 \right\}$ and $B = \left\{ \frac{1}{2x} : x \in \mathbb{N} \wedge x \leq 4 \right\}$. Find the following

(i) $A \cup B$

(ii) $A \cap B$

(iii) $A - B$

(iv) $B - A$

8. In a group of 52 persons, 16 drink tea but not coffee and 33 drink tea. Find

(i) how many drink tea and coffee both.

(ii) how many drink coffee but not tea.

9. In a group of 850 persons, 600 can speak Hindi and 340 can speak Tamil. Find

(i) how many can speak both Hindi and Tamil.

(ii) how many can speak Hindi only.

(iii) how many can speak Tamil only.

Class:11 Sci. - Biology

1. Give a comparative account of various classes of Fungi
2. Draw a neat, labelled diagram of dicotyledon seed.
3. Differentiate between nucleotide and nucleoside with an example
4. Describe Placentation and Aestivation with neat, labeled diagrams
5. Describe C3 and C4 cycle with diagram
6. Describe Mitosis and Meiosis.
7. What is apical dominance. Name any two synthetic auxins.
8. Name the parts of bacterial flagella.
9. What do elaioplasts and aleuroplasts store?
10. What is the composition of plasma membrane of human erythrocyte.
11. What are nuclear pores? State their function.
12. Differentiate between active and passive transport.
13. Differentiate between RER and SER.
14. List the functions of Golgi apparatus.
15. List the functions of mesosome.
16. Explain the Fluid Mosaic Model. Also represent it diagrammatically.
17. Give the characteristic features of the genetic material of bacteria. What is plasmid? What is its importance?
18. Diagrammatically represents the types of chromosomes based on the position of centromere.
19. State two economically important uses of:
 - (a) heterotrophic bacteria
 - (b) archaebacteria
20. Find out what the terms 'algal bloom' and 'red tides' signify.
- 21. Prepare a project on the topic "Study the morphology of flowering plants"**

CLASS:11 - CHEMISTRY

1. One of the postulate Bohr's atomic model is

- (1) The electron can move in only those circular orbits where the angular momentum is a whole number multiply of $h/2\pi$
- (2) Uncertainty in measurement is not due to lack of any experimental technique but due to nature of subatomic particle itself
- (3) The emission and absorption of energy does not take place continuously but in the form of quantum.
- (4) None

2. _____ is used to find out age of fossils.

- (1) Na-24 (2) C-14 (3) P-32 (4) K – 40

3. What is the packet of energy called?

- (1) Electron (2) Positron (3) Proton (4) Photon

4. Energy associated with Avogadro's no of Quanta is called _____.

- (1) Newton of energy (2) Planck of energy
- (3) Maxwell of energy (4) Einstein of energy

5. Bohr's theory is not applicable to

- (1) He (2) Li^{+2} (3) He^{+1} (4) H atom

6. What is the formula to find out radii of Bohr's orbit?

- (1) $mvr = nh/2\pi$ (2) $r = hc/\pi$ (3) $r = 0.529 n^2/Z$ (4) $r = -13.6 n^2/Z^2$

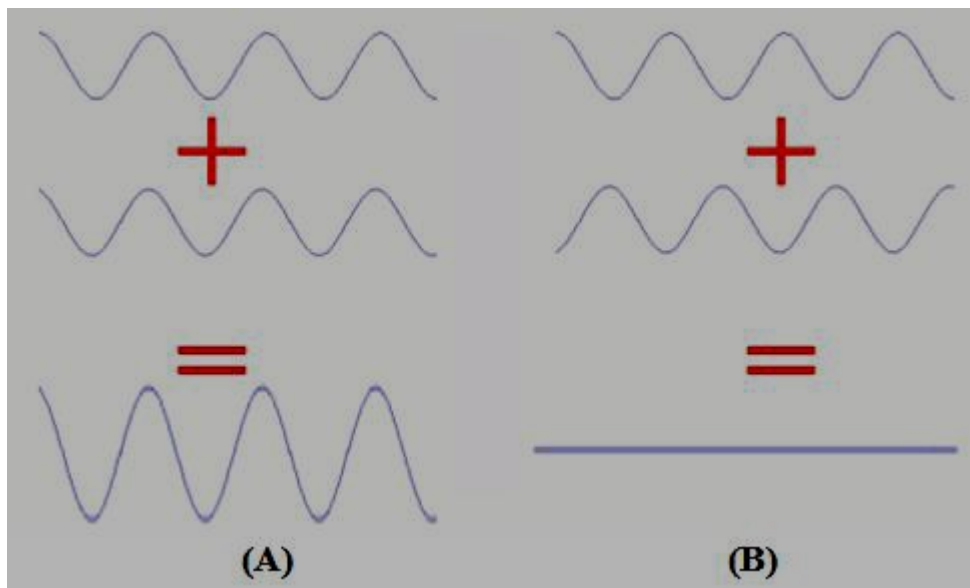
7. Compare the energies of two radiations, one with wavelength of 300 nm and other with 600 nm.

- (1) $E_2 = 2E_1$ (2) $E_1 = 2E_2$ (3) $E_2 = 4E_1$ (4) $E_1 = 5E_2$

8. Calculate the energy of Li^{+2} atom for 2nd excited state.

- (1) 13.6 eV/atom (2) -13.6 eV/atom
- (3) 27.2 J/atom (4) -1.36 J/atom

9. Identify type of interference given in the diagram.



- (1) A is constructive interference, B is destructive interference
- (2) A is destructive interference, B is constructive interference
- (3) Both are constructive interference
- (4) Both are destructive interference

10. In C-12 atom if mass of electron is doubled and mass of proton is halved, calculate % change in mass of C-12.

- (1) 75 %
- (2) 50 %
- (3) 25 %
- (4) 10 %

Direction: Q. 11 & Q.12 are multiple choice questions. Each question has four choices are (1), (2), (3) & (4) out of which one or more may be correct.

11. Which of the following is/are limitations of Bohr's atomic theory?

- (1) It does not explain fine structure of spectral lines.
- (2) It does not explain splitting of lines in presence of magnetic field.
- (3) It does not explain stability of atom.
- (4) It does not explain spectrum of multi electron atom.

12. Bohr's model can explain

- (1) The spectrum of hydrogen atom only
- (2) Spectrum of atom or ion containing one electron only
- (3) The spectrum of hydrogen molecule
- (4) Spectrum of He^{+1} , Li^{+2} ions also.

13. Packet of energy is called

- (1) Electron
- (2) Photon
- (3) Position
- (4) Proton

14. The increasing order of the value of e/m (charge to mass ratio) for electron (e), proton (p), neutron (n) and alpha particle (α) is

- (1) $e < p < n < \alpha$
- (2) $n < p < e < \alpha$
- (3) $n < p < \alpha < e$
- (4) $n < \alpha < p < e$.

15. What transition in the hydrogen spectrum would have the same wavelength as the Balmer transition $n = 4$ to $n = 2$ in the He^+ spectrum?

- (1) $n = 4$ to $n = 1$ (2) $n = 3$ to $n = 2$
(3) $n = 3$ to $n = 1$ (4) $n = 2$ to $n = 1$

16. The wave number of first line of Balmer series of hydrogen is 15200 cm^{-1} .

The wave number of the first Balmer line of Li^{2+} ion is

- (1) 15200 cm^{-1} (2) 60800 cm^{-1}
(3) 76000 cm^{-1} (4) $136,800 \text{ cm}^{-1}$

17. An electron is moving in Bohr's orbit. Its de Broglie wavelength is λ . What is the circumference of the fourth orbit?

- (1) $2/\lambda$ (2) 2λ (3) 3λ (4) $3/\lambda$

18. When the frequency of light incident on a metallic plate is doubled, the KE of the emitted photoelectron will be;

- (1) doubled (2) Halved
(3) Increased but more than doubled of the previous KE
(4) Remains unchanged

19. The ratio of the difference in energy of electron between the first and second Bohr's orbit to that between second and third Bohr's orbit is;

- (1) 13 (2) 275 (3) 94 (4) 49

20. The ratio of the energies of photons of $2000 \text{ \AA}$ to that of $4000 \text{ \AA}$ is

- (1) 2 (2) 4 (3) $1/2$ (4) $1/4$

21. Which of the following postulates does not belong to Bohr's model of the atom?

- (1) Angular momentum is an integral multiple of $h/2\pi$
(2) The electron stationed in the orbit is stable
(3) The path of an electron is circular
(4) The change in the energy levels of electron is continuous

22. The energy of the second Bohr orbit in the hydrogen atom is -3.41 eV . The energy of the second Bohr orbit of He^+ ion would be

- (1) -0.85 eV (2) -13.64 eV (3) -1.70 eV (4) -6.82 eV

23. Calculate the velocity of an electron placed in the third orbit of the hydrogen atom. Also calculate the no. of revolutions per second that this electron makes around the nucleus.

24. A bulb emits light of $\lambda = 4500 \text{ \AA}$. The bulb is rated as 150 watt and 8% of the energy is emitted as light. How many photons are emitted by the bulb per second?

25. Find out the number of waves made by a Bohr electron in one complete revolution in its 3rd orbit.

26. i) The energy associated with the first orbit in the hydrogen atom is $-2.18 \times 10^{-18} \text{ J/atom}$. What is the energy associated with the 5 orbit?

ii) Calculate the radius of Bohr's fifth orbit for hydrogen atom.

Class:11 Sci. - Physics

- Q.1) Write about CGS, FPS, MKS measurement systems.
Q.2) Write the fundamental quantities of SI units.
Q.3) What is fundamental quantity?
Q.4) What is the meaning of derived quantities? Give any 5 examples.
Q.5) Convert 2 m into – cm, m, mm, nm, micrometer.

Class:11 Sci. - English

Prepare notice on the topics discussed in the class.

Prepare character sketch of grandmother and Khushshwantsinh

CLASS:11 – SCI & COMM. – PHY.EDU

- **Record File (Game Book)**

Choice from the given list any one game

Badminton, Skating, Chess, Judo, Shooting, Swimming, Tennis, Yoga

Record file shall include:-

Practical-1: Labeled diagram of 400 M Track & Field with computations.

Practical-2: Describe Changing Trends in Sports & Games in terms of changes in Playing surface, Wearable gears, Equipment, Technological advancements.

Practical-3: Labeled diagram of field & equipment of any one IOA recognized Sport/Game of choice.